MOTHERS AND THE PROCESS OF SOCIAL STRATIFICATION

Mothers and the Process of Social Stratification

De invloed van de moeder op het proces van statusverwerving
(met een samenvatting in het Nederlands)

Proefschrift

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To my mother, for her love and support.

Preface

Looking back, it seems as if the influence of the mother is a curiously neglected topic in studies on social inequality. Most of us were raised by a mother. Most of the infant years are mainly spent in the company of the mother. This scientific neglect originated not from any missing acknowledgement of the importance of the mother for the upbringing of the children. In the beginning mainly cost considerations have led to the exclusion of the mother's influence from the scope of the research. Somewhere along that line this exclusion became habitual, something of a 'tradition'. I hope that my work may strengthen the conviction that it is time to break with this 'tradition'.

Acknowledgements are due to my supervisors, Harry Ganzeboom, Tanja van der Lippe and Karin Sanders. It was a pleasure to learn from and collaborate with them over these past few years. They always managed to fuel my productive spirit and continued to be a source of professional inspiration. Harry I owe more than just my respect for the trust and confidence he placed in me during an initially particularly difficult period of mine. I thank the reading committee, Prof. Dr. Anneke van Doorne-Huiskes, Prof. Dr. Jacques Siegers, and Prof. Dr. Jaap Dronkers for their interest in evaluating my dissertation. Special thanks go to Wim Jansen and Jeroen Weesie for helping to solve some of my statistical riddles. I thank my colleagues Miranda Jansen and Susanne Rijken for biting back their laughter while correcting my summary in Dutch. My fellow PhD students in Utrecht and at the other locations of the Interuniversity Center for Social Science Theory and Methodology were a pleasant source of inspiration for having some good times.

Although I am not grateful for it, at the end of 1998 the completion of the book was speeded by the breakdown of my TV. Still, this incident created some spare time to get out and together with friends. Here my special 'thanks' go to Nettie, Horst, Marten, Sünje, Krassi, Malcolm, Rachel, and Gabriel who successfully went along with some of my ups and downs. Also, I will miss the diversion of those weekly Wednesday evening 'borrels' together with the 'hard core'. Tony I thank for his friendship and the wonderful evenings devoted to classical entertainment. Mika I thank for his friendship and love.

My brothers Stephan, Dorian, and Winfred have provided me with loads of support and a warm understanding throughout the production of this thesis. My mother helped correcting my manuscript and never failed me with her splendid sense of humour; a small example (N=1) for the influence of the mother's socioeconomic status on the professional career of her daughter. To her I dedicate this book.

Sylvia Korupp
Utrecht, May 2000

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'Placing women's experience at the centre of inquiry challenges basic theoretical frameworks in most academic disciplines.'
(Abel & Abel 1983, p.2)

Chapter 1 Placing Mother's Influence at the Centre of Inquiry

1.1 Introduction

Most societies have a socioeconomically stratified system. A stratified system is defined as a "hierarchical ordering of positions in terms of power, privilege and prestige" (Kohn & Slomczynski 1990, p.31). Studies of social stratification use levels of occupational status to determine the locations of individuals in the hierarchy of the stratified system. The higher levels of status are assigned to more complex jobs and the lower levels to less complex jobs. Within the stratified system an occupation is assigned to an individual on the basis of her or his schooling and skills. If everybody has the same chances to achieve any occupational title that matches his or her education and skills, we call this equality of opportunity. *In*equality of opportunity is the result of exclusion of individuals not by their personal ability, but by the enforcement of some form of ascriptive criteria.

By being born into a social stratum, thus through social origin, people sometimes receive status benefits before they enter the attainment process and prove their abilities. Here children 'inherit' the socioeconomic status of their parents. The most extreme form of applying ascriptive criteria is primogeniture, the right of the first-born to inherit the firm, a farm, title or rank. For this case we can say that social origin fully determines a child's status attainment. Usually, though, we encounter more subtle forms of ascription. Very often the jobs of parents and children are more or less similar or merely related. Research in social stratification studies this relationship between social origin and children's status attainment.

Besides social origin, the education of a child also heavily influences her or his job status later in life. The earliest study to model the exact importance of education for children's status attainment was carried out by Blau and Duncan (1967). They were the first to partition the pathways of status attainment into the dimension of 'achievement' and 'ascription'. Any status attainment of children that can be traced back to their own education is their personal *achievement*.

On the other hand, any status attainment of children that can be traced back to their parents' education and occupational background is *ascription* of socioeconomic status (see Figure 1.1).

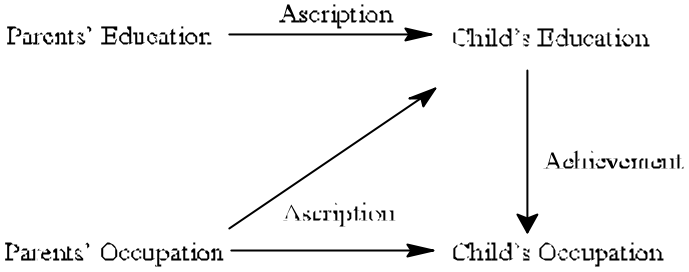

Figure 1.1 Pathways of Status Attainment

1.2 The Status Attainment Model

The classical status attainment model, developed by Blau and Duncan in 1967, captures the causal relationships between the education and occupational status of two generations: the father and the son. Their model is the point of departure for this current study (see Figure 1.2). Blau and Duncan's status attainment model contains five measures of socioeconomic status, two for the father and three for the son, ordered from the left to the right according to their occurrence in the life cycle: father's education and occupation precede the son's education. The father's education and occupation and the son's education precede the son's first occupation, and current occupation in 1962.[1] The father's education and occupation are so-called exogenous variables. These two exogenous variables influence the three subsequently occurring career steps of his son's status attainment: his education, first occupation after leaving school, and current occupation in 1962. These latter three career steps are the so-called endogenous variables in the model.

The most important feature to notice in Figure 1.2 is the extent of the relationship between the exogenous and endogenous variables, given by the numbers above the arrows, the coefficients. The size of the relationship between these five variables shows to what extent advantages are transmitted from one generation to the next. If the value of the coefficient between the exogenous and endogenous variables is high, the transmission of advantages is high and socioeconomic mobility is low. Vice-versa, if the value of these coefficients is low, the transmission of advantages is low and socioeconomic mobility is high.

Thus, Blau and Duncan rephrased socioeconomic mobility by measuring the influence of the father's education and occupation on the son's education and his first and present occupational status. Their model provides us with a tool to dissect the relationship between social origin of the individual and his or her attained occupational status. The elliptic line on

[1] 1962 was the year when the *Occupational Changes in a Generation* (OCG) survey was held.

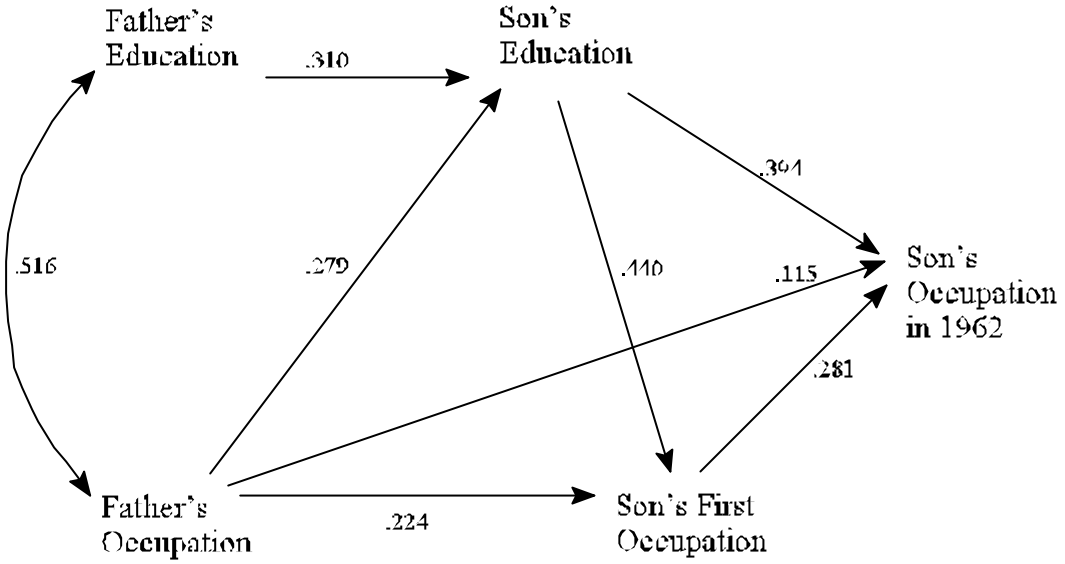

Figure 1.2 Blau and Duncan's Classical Status Attainment Model (1967, p.170). Parameters for Men in the USA in 1962

the left-hand side indicates the correlation (relationship) between the two exogenous variables that is not analysed. A direct influence, here called a path coefficient, is drawn as a straight line. The entire path model partitions the correlations between all variables into direct, indirect and spurious effects. Remember from Figure 1.1 that the path running between the education and occupational status is an achievement relationship and the path between the socioeconomic background of the parent and the child is what we call ascription by social origin. The coefficients in Figure 1.2 tell us that the direct or net effect of the son's education on his first occupational status is about twice as high (0.440) as the direct or net effect of the father's occupation on the son's first occupation (0.224). This ratio increases later in their careers. We observe that the direct effect of the son's education on his current occupation in 1962 was about three times higher (0.394) than the direct effect of the father's occupation on the son's current occupation in 1962 (0.115).

If we compare the total effects of the son's education and the father's occupation on the current occupation of the son, this ratio is higher. Part of the influence of the son's education and the father's occupation is transferred via the first occupation of the son. Total effects can be calculated by multiplying the effects of the son's education and father's occupation by the first occupation of the son. The total effect of the son's education on his current occupation in 1962 is 0.518 (=0.394+0.440*0.281), whereas the total effect of the father's occupation on the son's current occupation in 1962 is 0.178 (=0.115+0.225*0.281). Thus, the total effect of the son's education is three times higher than the total effect of the father's occupation. Clearly, in 1962 achievement was more important than ascription.

It was a considerable accomplishment of Blau and Duncan to measure the social mobility between two generations and show how the father's effects develop over the life cycle of the son in a single model. For the first time status 'ascription' by parents and children's individual 'achievement' were accurately dissected in the process of 'status attainment'. Empirically they implemented their model by estimating the influence of the father's status transfer on the son's education and occupation from a large, nationally representative sample of men in the USA in 1962. For that period - during the 1960's - the empirical calculations they carried out were remarkable because the computing facilities were still basic. Now their procedure has become standard in parts of sociological research.

Yet, men form only half of the population and they always have, apart from a father, a mother as well. From the start, the *OCG* study was not designed to include daughters and only one of the tables in the research report of Blau and Duncan includes some information on the influence of the mother's education on the son's education. The result in this table suggests that this effect is *as large* as the father's (p.189). However, in a report containing more than 500 pages this remarkable result is mentioned, to my knowledge, only once: "The net, or direct, effects of these characteristics of the wife, though they are modest in magnitude, cannot be dismissed as chance findings" (p.345). However, Blau and Duncan then go on to dismiss this result on other grounds. They assumed that the mother's effects "[...] would disappear in a system of variables including one or more strategic characteristics of the husband that we failed to measure" (ibid.).

Historians of stratification research have been quick to point out that Blau and Duncan (1967) are in excellent company with other renowned researchers of social mobility when it comes to excluding the influence of the mother from the scope of the research (Ganzeboom et al. 1991). In the first generation of social mobility studies (e.g. Glass (1954) for England and Wales and Van Tulder (1962) for the Netherlands) women's mobility did not appear in the research reports. In the second generation of social mobility studies, which were often a replication of Blau and Duncan's study, mothers and daughters were an either omitted or were an under-represented group compared to fathers and sons (Featherman & Hauser 1978, Goldthorpe et al. 1972).

The aim of this current research is to study the role of the mother in determining the chances of her children, both male and female, in the process of stratification. The overriding research question in all subsequent chapters is how the mother's status background influences all levels of status attainment of her children.

Several rationales exist for the exclusion of mothers and daughters from the scope of status attainment research. The three most prominent justifications are: first, if they ever enter paid employment, women commonly stop working as soon as they marry or have children. Secondly, even if mothers remain employed, their occupational status hardly has any influence on the status

attainment of her children, because they, on average, have a lower educational level and occupational status than fathers and thus fewer socioeconomic resources to transfer. A third objection to the inclusion of mothers is less based on a substantive reason. Many times researchers simply find it too difficult to include the socioeconomic status of mothers in their study. Because of their intermittent labour market participation, researchers encounter missing information on the occupational status of mothers and daughters. The following section will offer some arguments for why these assumptions may no longer hold. It shows the development of female educational attainment, economic activity and occupational status over recent decennia.

1.3 Revisiting the Past: Women's Education, Employment, and Occupational Status

The following description of women's educational level, labour market participation and occupational status focuses on the developments found in the USA, the Netherlands and Germany. This choice of countries was made, because in the further course of the study much of the analysis will be based on either one or more of these countries. However, many of the developments described here are not unique to this current selection but can be found in most Western industrialized countries.

The observation window spans the last three to four decennia. A longer observation window would have been preferable, but internationally comparable data are difficult to acquire for earlier years. In the following section, the figures shown are based on the adult population and if possible, restricted to married women and men, and thus include much of the target population for the empirical studies later on.[2]

1.3.1 Women and the Educational Expansion

The educational status of mothers is often assumed to be lower than the educational status of fathers, and because of this they are often excluded in research on social stratification. In the following two sections we will look at the development of the educational level of women over the last three to four decennia. Subsequently we will study the differences in educational level between husbands and wives. The surveys used to obtain these figures are part of the *International Stratification and Mobility File* (*ISMF*, Ganzeboom & Treiman 1999).[3] The numbers shown refer to the year when the survey was held.

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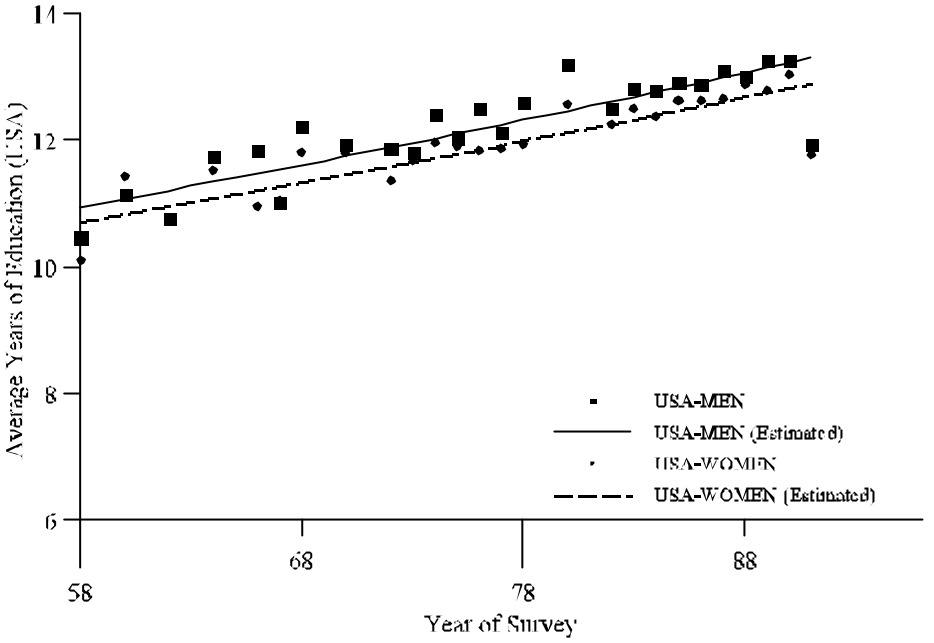
[2] Married men and women are, of course, a different population than fathers and mothers. Nevertheless, comparable population statistics for fathers and mothers are even more difficult to obtain than for married women or men. It would have been possible to use the population surveys of the empirical chapters of this book. Yet, sources other than my primary references underline the generalizability of the argument.

[3] I would like to thank Harry Ganzeboom for providing the data.



Source: ISMF

Figure 1.3.a Trends in Educational Attainment (USA)

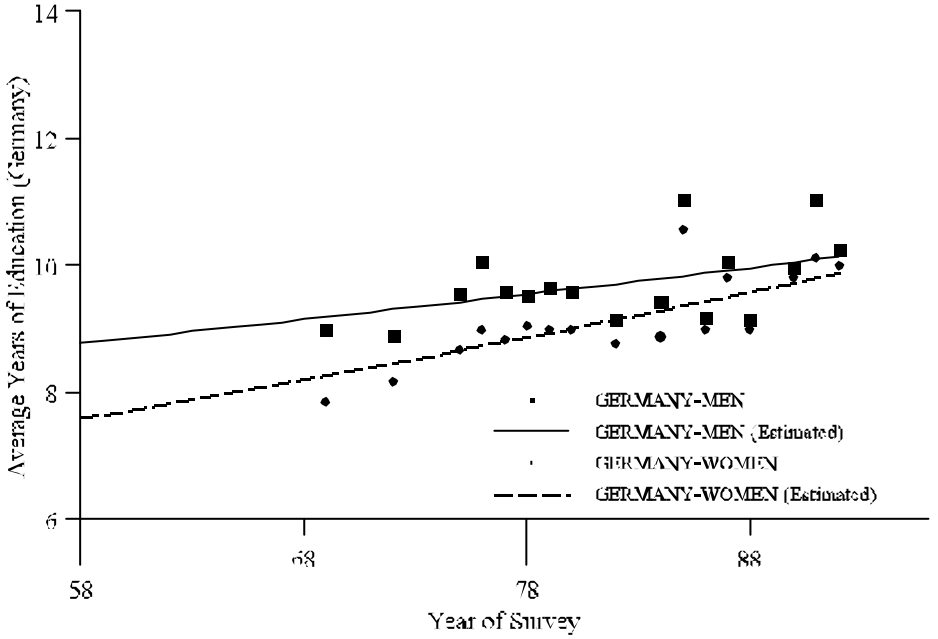


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Figure 1.3.b Trends in Educational Attainment (Germany)

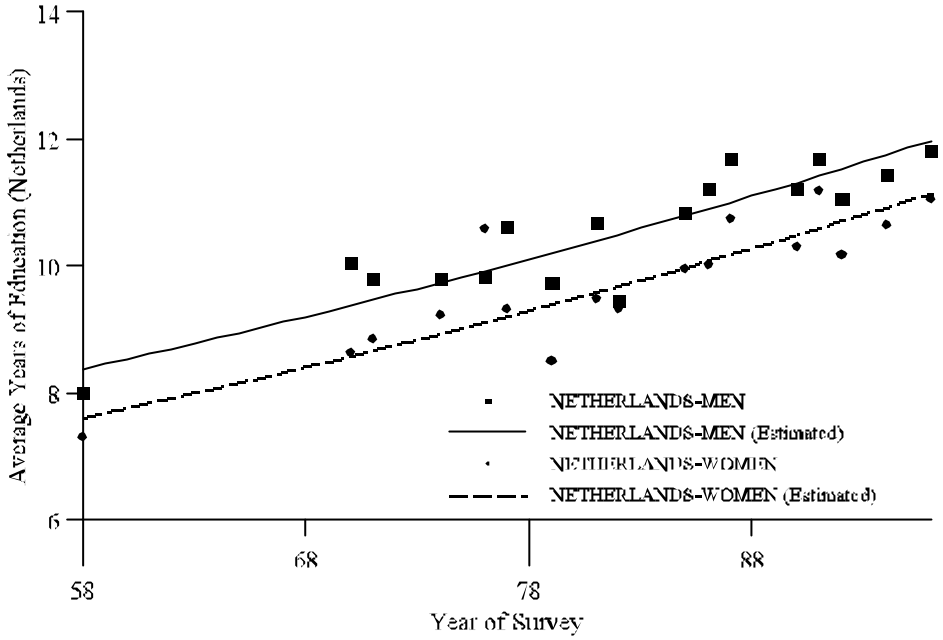

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Figure 1.3.c Trends in Educational Attainment (Netherlands)

First we compare how the average number of years in education of men and women has developed in the USA, Germany and the Netherlands (see Figures 1.3.a to 1.3.c). The graphs show the average number of years spent in education for the various years when the survey was held (see appendix A). The dots in the graph refer to the raw measurements from population samples. An estimated linear trend indicates the development of the average educational level of men and women in each of these countries. Note that for Germany no older data than a survey from 1969 was available, therefore we have no information for earlier years. For men and women we notice an upward trend in the number of years of schooling.

In the USA the average number of years women spend in education is higher than in the Netherlands or Germany. In the USA, women have, compared to men, almost the same average level of education. Over time the average number of years in education have risen more slowly in the USA than in Germany or the Netherlands. There, the estimated trends suggest that within roughly 35 years of observation the average duration of education for men and women has increased by two years. In Germany the average duration of education has increased by two years between 1968 and 1988, rising from a little over eight years in 1968 to approximately 10 years in 1988. The Netherlands show the most dramatic development of trends in duration of education. Here the average duration of education has risen from almost eight years in 1958 to almost 12 years for men and 11 years for women of years spent in education in 1996.

In Germany the upward trend for women is slightly higher than for men. Although in Germany

women started further down the scale than men, they are catching up with the average duration of men's education. At the end of the observation window women still lag slightly behind men, but for Germany the gap is closing. For the Netherlands and the USA the trend towards a closing gap between men's and women's education is not as pronounced. However, one has to consider that trend lines on the aggregate include observations at all age levels. If we compare trends on the average duration of education between national populations the development is not as pronounced as if we undertake the same comparison between age groups.

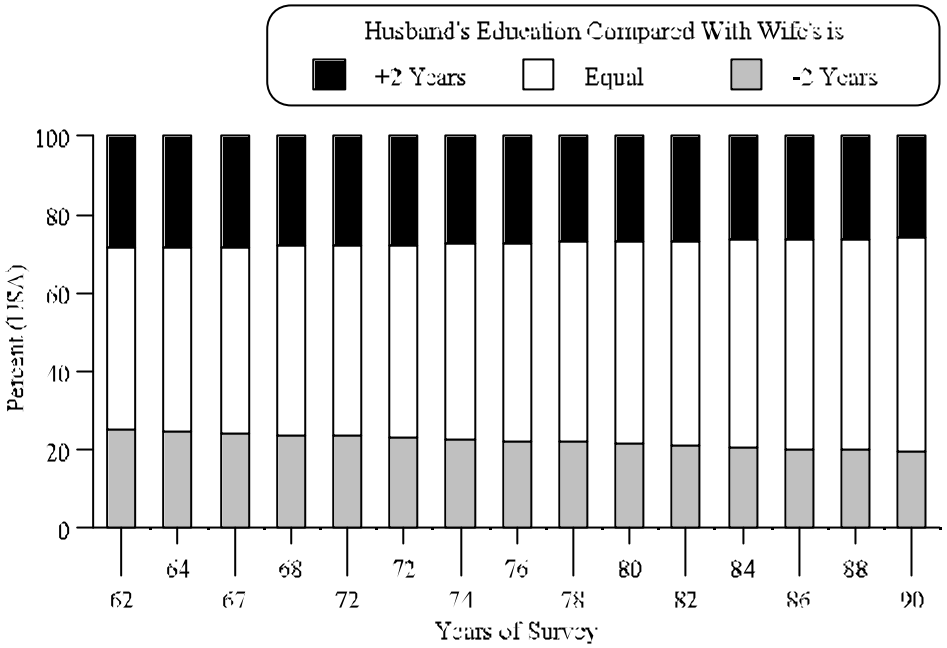
We have seen that on the aggregate level the duration of education of women in the USA, Germany and the Netherlands is a slightly lower than that of men. However, these trends do not automatically imply that a woman with a lower level of education is married to a man with a higher level of education. The following section will look at this latter argument more closely.

1.3.2 Husbands' and Wives' Educational Level

The next comparison again is based on the ISMF (*International Stratification and Mobility File*, Ganzeboom & Treiman 1999), but this time for the differences in educational level between husbands and wives, in the USA, Germany and the Netherlands. The difference scores are displayed in Figure 1.4.a to 1.4.c. The black shaded area shows the percentage of couples where the husband's education exceeds his wife's education by (at least) two years. The white area indicates the percentage of couples where the husband's and the wife's education are no more than two years apart. These couples were coded to be 'status equal'. The grey shaded area displays the percentage of couples where the wife exceeds her husband's education by at least two years. Note that the observed percentages have been smoothed out by estimating a linear trend.

In the USA over the years there has been a trend towards more equality between husbands' and the wives' educational levels (Figure 1.4.a). At the beginning of the 1960's the percentage of marriages where the duration of the husband's education exceeds his wife's is about 30%. But wives also exceed husbands' educational level in 30% of the marriages. This leaves 40% of marriages where wives and husbands are status equal. In 1990, 20% of marriages consist of a husband with a higher education than his wife. Almost the same is true for the reverse case; the percentage of marriages where the wife has a higher educational level than her husband is roughly 20% as well. In 60% of the marriages educational status equality exists between spouses.

Figure 1.4.b shows the percentage of marriages with unequal and equal education for husbands and wives in Germany. The percentage of marriages where wives are better educated than their husbands increases over the years. In 1969 about 10%, whereas in 1992 roughly 20% were marriages where wives were better educated than their husbands.



Source: ISMF

Figure 1.4.a Married Couples With Unequal and Equal Education (USA)

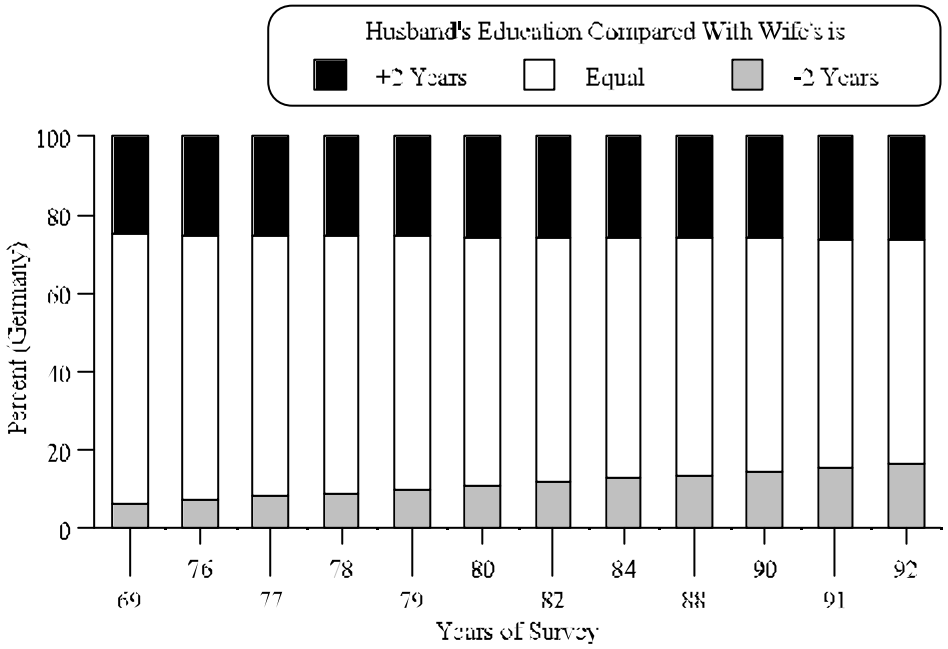


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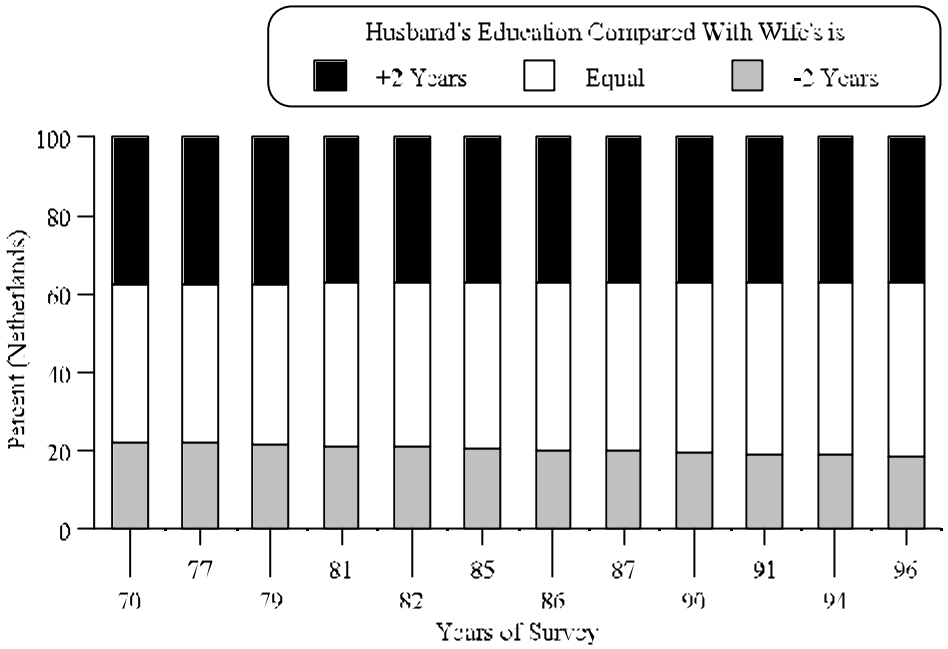
Figure 1.4.b Married Couples With Unequal and Equal Education (Germany)



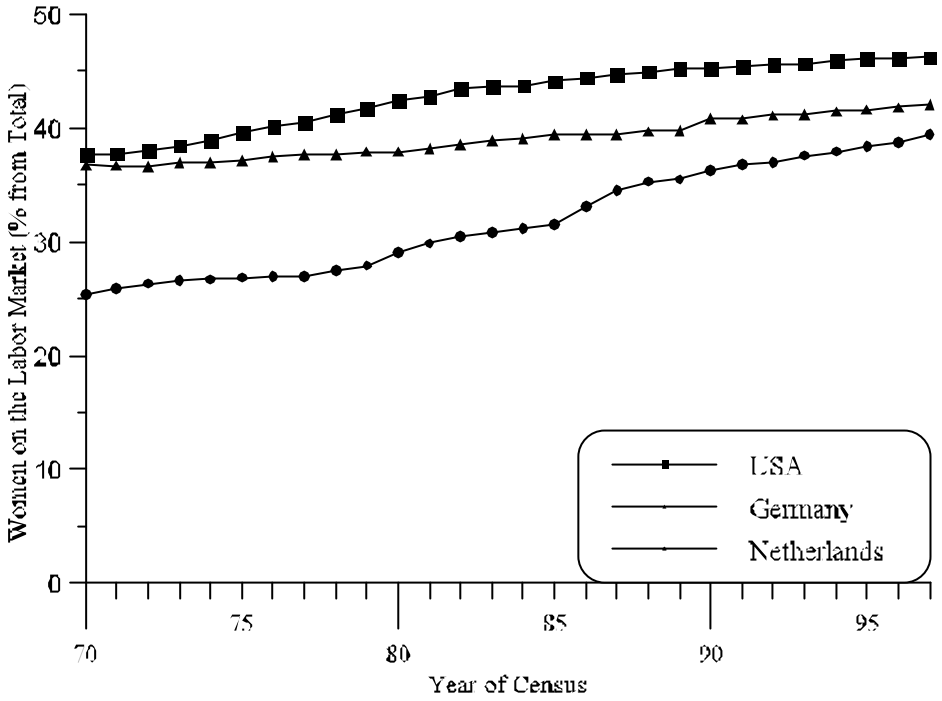
Source: ISMF

Figure 1.4.c Married Couples With Unequal and Equal Education (Netherlands)

Educational status equality between spouses is largest for Germany, compared to the USA or the Netherlands. Between 1969 and 1992 the percentage of marriages where the husband exceeds his wife's education duration has remained stable at approximately 65%. Figure 1.4.c shows the development for the Netherlands. The percentage of marriages where both spouses are equal status increases between 1970 and 1996. However, in 1970 in more than 20% of all marriages and in 1996 in fewer than 20% of all marriages, the wife's education was higher than that of her husband. The percentage of marriages in which the husband exceeds his wife's education remain more or less stable at 40% between 1970 and 1996. The case that the husband exceeds his wife's educational level is less common than the cases taken together where they either have an equal educational level or where the wife exceeds her husband's educational level. Therefore, concerning the education of husbands and wives, the case that the husband exceeds his wife's education has been overstated.

1.3.3 The Development of Women's Employment

For all three countries and throughout the observation window, a trend towards a continuously increasing labour market participation of women can be observed (see Figure 1.5). When comparing the rate of female labour market participation for the Netherlands, Germany and the USA, we see that the Dutch rate used to lag far behind that of the other two countries. Since mid 1980, however, it shows the steepest increase.

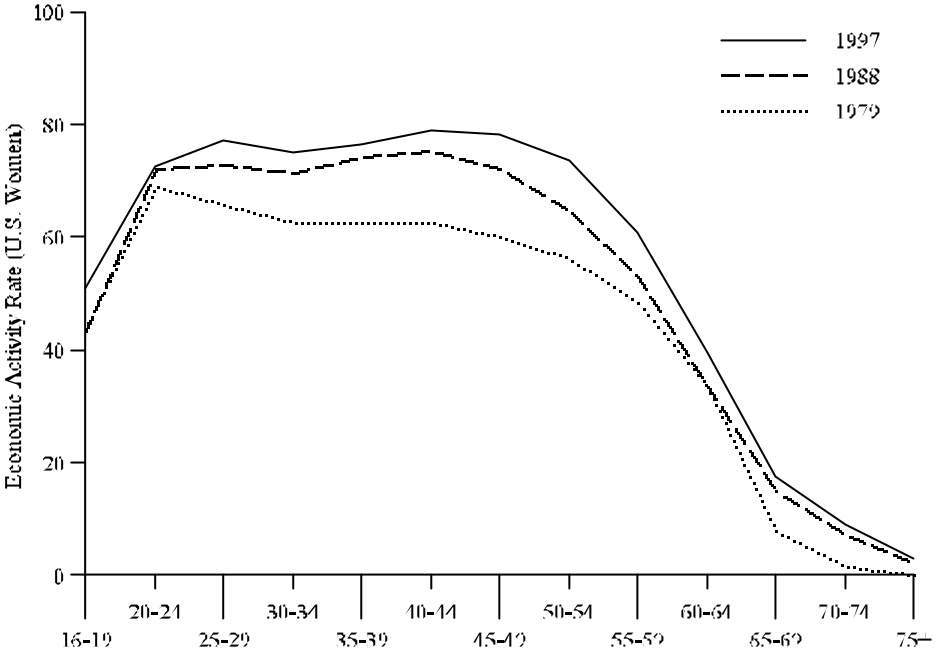


Source: ILO 1998, Mikrozensus 1998, CBS 1998

Figure 1.5 Development of Women's Employment Rates in the USA, Germany and the Netherlands (1970-1997)

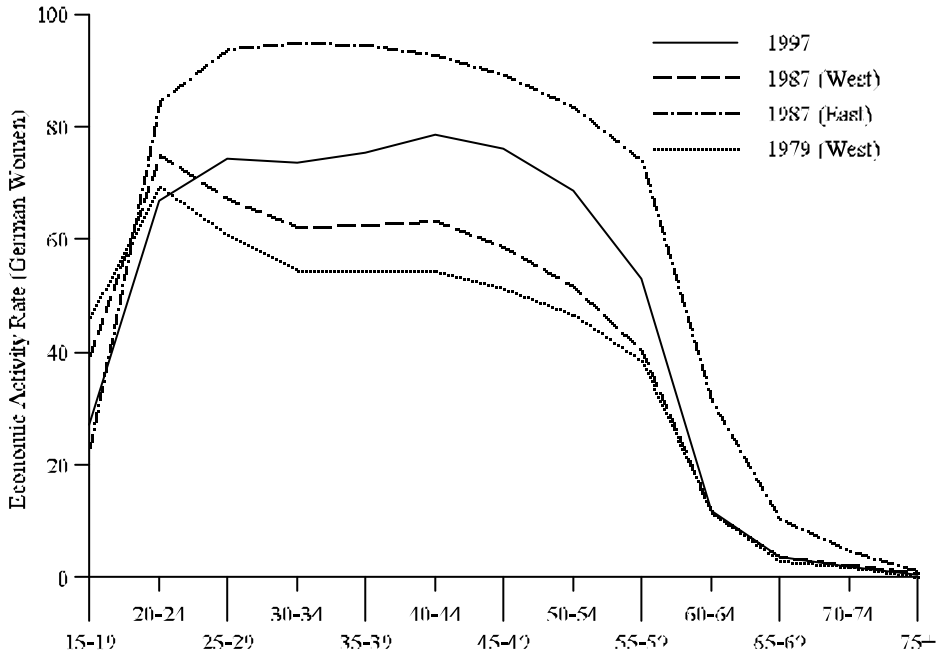
The female employment rate in the USA has always been higher than for Germany or the Netherlands. German women have occupied an intermediate position between the Netherlands and the USA. Their employment rate also shows an upward dynamic, but it has been slower compared with that found for the USA and the Netherlands. In 1989 the reunification of East and West Germany took place. Labour market participation of East German women used to be much higher than that of West German women. Therefore, after reunification, the number of employed women slightly increased.

Of course, the next question is whether the overall trend towards an increased rate of employed women applies to all age groups in a similar way and whether it holds also for women who are mothers. Perhaps only part of the female population, i.e. young single women, are responsible for the development. Perhaps it is still pertinent that as soon as women have family obligations they leave the labour market in large numbers to care for their children and family.



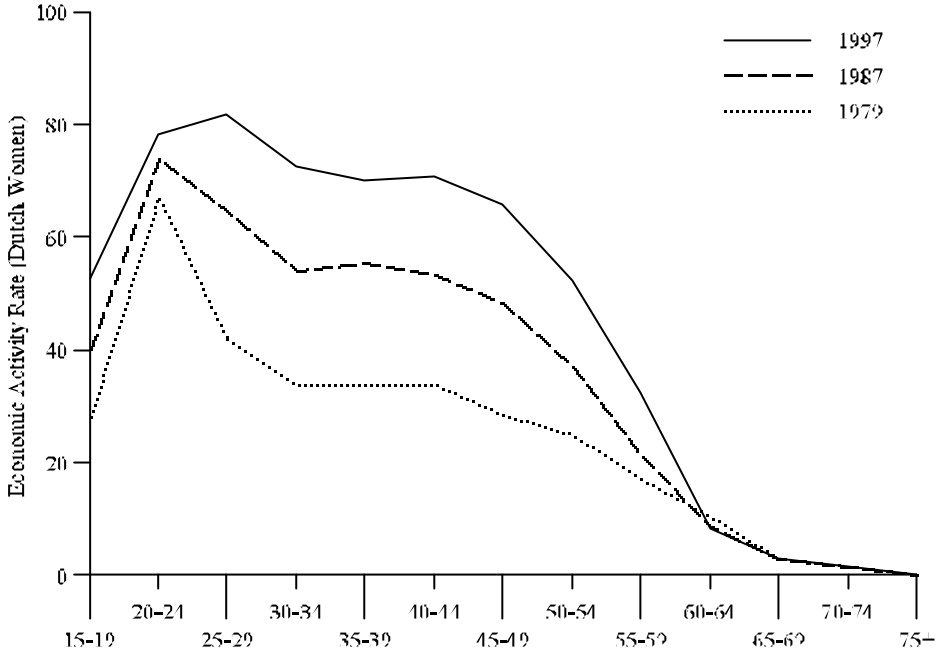
Source: ILO 1980, 1989-90, 1998

Figure 1.6.a Women's Employment Rate in 1979, 1988, and 1997 (USA)



Source: ILO 1980, 1989-90, 1998

Figure 1.6.b Women's Employment Rate in 1979, 1987, and 1997 (Germany)



Source: ILO 1980, 1989-90, 1998

Figure 1.6.c Women's Employment Rate in 1979, 1987, and 1997 (Netherlands)

Figure 1.6.a to 1.6.c show the active female population[4], 16 to 75 years old, in the USA, Germany and the Netherlands. For all three countries in 1979, women aged between 20 and 24 years have the highest rate of economic activity. It decreases for women who are between 25 and 34 years old. This decrease is most pronounced in the Netherlands.

In 1979 many women never re-enter the labour market. The economic activity rate for women between 45 and 54 years in the USA is around 60%, for Germany it is around 50%, and for the Netherlands it is at the 25% level. To some extent it is thus true that women used to quit employment when they reach the age to marry or to have family obligations. Many chose to be homemakers.

However, by 1988 we observe that the distribution of the active female population in the USA shows a small 'dip' for women between 25 and 39 years of age. It indicates that a certain proportion of mothers, when their children are young, stay at home and care for the children. Later in life, when they are around 40, they often become economically active again.

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4 In the ILO statistics women were defined as belonging to the active female population, if they were:

(a) at work, performing some work for pay or profit during at least a specified brief period, either one week or one day.

(b) with a job but not at work due to bad weather, strikes, illness, injury, vacation etc.

(c) self-employed or unpaid family workers, working at least one third of the normal working time.

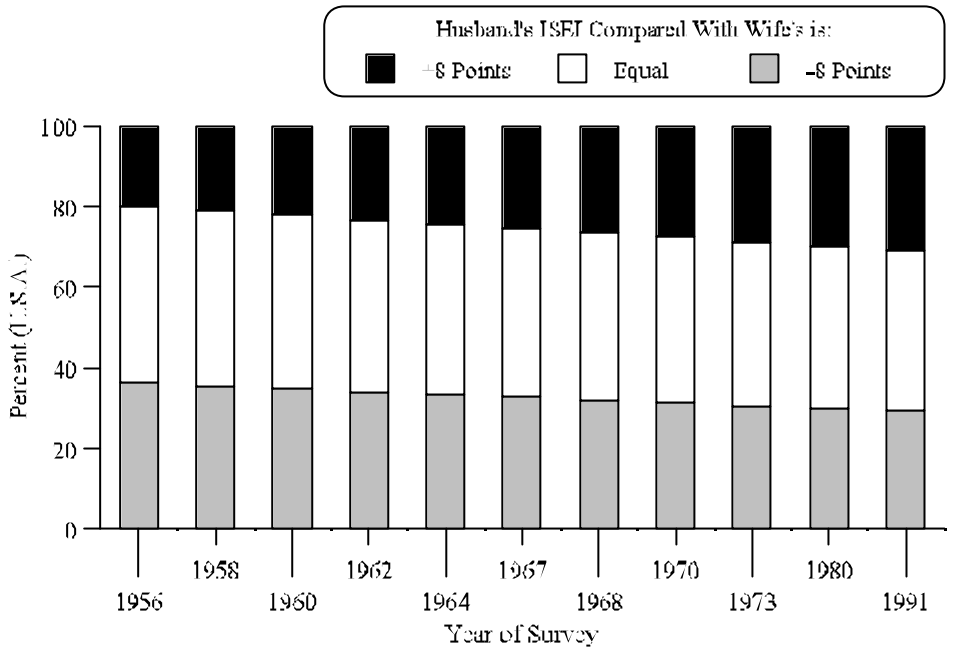
The lowest labour market participation we notice for women between 30-34 years. Neither for Germany (West) nor for the Netherlands do we see the same pattern as for the USA. By 1987 the Netherlands shows a similar distribution of economically active women to that in Germany; in both countries only up to the age of 24 are the majority of women employed. In 1987, women in East Germany had a far higher rate of female employment than women in the USA, West Germany or the Netherlands. This is because in the German Democratic Republic the government enforced a high rate of female employment.

In all three countries we notice a peculiar development during the most recently observed year of 1997. The age group that shows the highest rate of economically active women shifts from the age between 20 and 25 years to the age of 25 to 29 years. The explanation is that women spend an increasing amount of time in education and postpone childbearing. Not the Netherlands but the other two countries have female participation rates that are becoming more bell-shaped. All three figures indicate that at one time or another more than 60% of the female population have been economically active in these countries. Recently, to an increasing degree women's economic activity tops at a stage where family and child rearing obligations are liable to occur, that is between the ages of 25 and 45. We can conclude that many women, even when they have become mothers, continue to work. Discharging mothers from the research agenda on the basis of their economic inactivity is no longer a valid argument.

1.3.4 Husbands' and Wives' Occupational Status

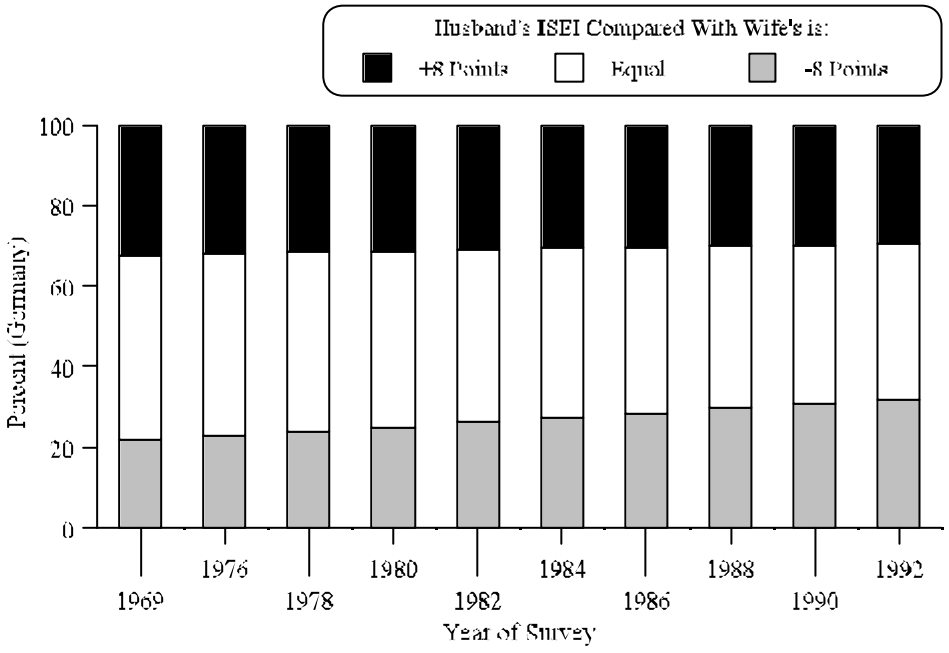
The next argument for excluding the influence of mothers from studies in social inequality is that if wives are employed they usually have an occupational status lower than that of their husband, and therefore fewer resources to transfer to their children. For the USA, Germany and the Netherlands I show in Figures 1.7.a to 1.7.c how the occupational status scores between husbands and wives have differed over the last three to four decades. The data points were smoothed out, that is a linear trend was estimated, in order to facilitate their interpretation. The occupational scores were computed, based on the ISEI index of occupational status (Ganzeboom et al. 1992) and range between 10 and 90 (the nature of the ISEI will be discussed later on in section 1.6).

The division of marital status differences is threefold. In the first group the husband exceeded his wife's occupational status by more than eight points. The black bars relate to the percentage of couples in the first group. In the second group, from here on called 'equal' status, the differences between the husband and the wife were no more than eight points. The white bars indicate the percentages of marriages in the second group. In the third group the wife exceeded the husband's occupational status by more than eight points. The grey bars show the percentage of marriages in the third group. In the USA (Figure 1.7.a) we observe a trends towards occupational status dominance of the husband.



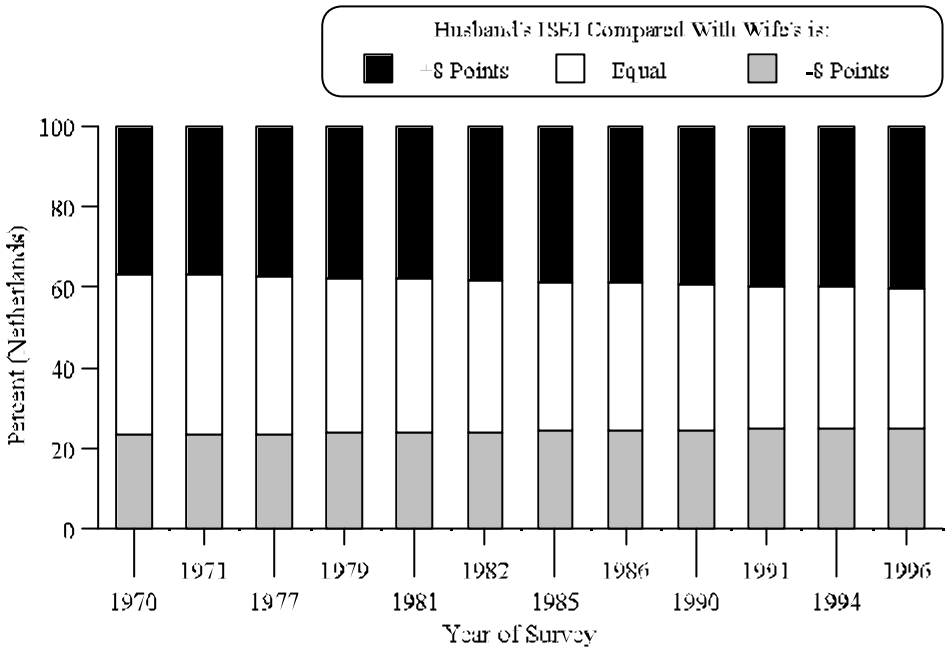
Source: ISMF

Figure 1.7.a Married Couples With Unequal and Equal Occupational Status (USA)



Source: ISMF

Figure 1.7.b Married Couples With Unequal and Equal Occupational Status (Germany)



Source: ISMF

Figure 1.7.c Married Couples With Unequal and Equal Occupational Status (Netherlands)

In the past there were a higher percentage of marriages where wives' job statuses exceeded husbands' job statuses (roughly 40%) than for the case where husbands' statuses exceeded wives status (around 20%). Within the last decade there are almost as many marriages where the husband is status dominant as there are where the wife is status dominant (both roughly 25%).

In contrast to the USA, Germany has a higher percentage of marriages where the husband exceeds his wife's occupational status (29.1%) and a lower percentage where the wife exceeds her husband's job status (27.5%). Still, in Figure 1.7.b we also notice a high percentage of marriages where the husband and the wife have an almost identical occupational status. We observe a slight trend towards a higher percentage of marriages in which the wife holds a higher occupational status than her husband, comparing the grey shaded area of the earliest survey (1969) with the latest survey (1992).

In the Netherlands (Figure 1.7.c), compared with the USA and Germany, we find the highest percentage of marriages where the husband's job status exceeds that of his wife by more than eight points (average over all surveys: 39.3%) and the lowest percentage for the reverse case, that the wife exceeds her husband's status (average over all surveys: 24%).

A trend towards less status equality exists. However, for a higher percentage of marriages the husband's occupational status is higher than the wife's occupational status compared with the

reverse case, where the wife's occupational status is higher than the husband's job status. In recent years this has become increasingly the case.

In all three countries we notice that in more than 50% of the marriages either the wife exceeds the husband's job status or both spouses have an almost equally high occupational status. Taking all survey years together, on average of 50% of all married couples in the Netherlands, 51% in Germany and 67% in the USA have equal status spouses, or a wife who exceeds her husband's occupational status. Moreover, the percentage of marriages in which the husband's occupational status exceeds the wife's status is only marginally larger than the percentage of marriages where the wife exceeds her husband's status. For the USA this ratio is 32:31, for Germany it is 29:28. The Netherlands ranges outside this with a ratio of 39:24. Overall, therefore, the assumption that the husband usually has a higher occupational status than his wife has been also overstated. Excluding the influence of the mother on the basis of this assumption can no longer be viewed as a valid argument either.

Altogether the conclusions from the empirical evidence are: (A) Mothers will have on average almost the same educational and occupational level as fathers, in recent times increasingly so. (B) At some time in their lives almost all mothers will have held an occupational title of their own, so that even if they are currently out of the workforce, it is nevertheless possible to retrieve their occupational title from the time they had paid employment. (C) We can assume that spouses have equal status in at least half of all the cases.[5]

Of course, the argument that it is technically difficult to include mothers in research on social mobility also has to be considered (e.g. Ganzeboom et al. 1991, p.293). Yet, this should merely stimulate ideas about the solutions on how to overcome these problems. Although right up to the present day the influence of the mother has remained a largely neglected area in mainstream social mobility studies, some studies exist where interesting methods, models and questions have been proposed regarding the mother's influence. The following literature review may provide some good examples.

1.4 Literature Review

In contrast to what is commonly believed, studies on women's occupational mobility started to appear rather early (e.g. Hughes 1949, Ellis 1952, Caplow 1954). In line with the moral standards of those days, they dealt with psychological aspects of unmarried career women (Ellis 1952) or the "marginal man", i.e. the discrimination women faced in the labour market (Hughes 1949). Ellis (1952), for instance, compared upwardly mobile to non-upwardly mobile women. Her main

[5] Furthermore there is no reason to assume that *a priori* only the level of the higher status parent counts whilst the lower status parent does not have any additional influence (see Chapter 2 for full details).

hypothesis was that upward mobility was an outgrowth of basically neurotic drives resulting from unsatisfactory early primary group relationships. She found mobile women to be more socially isolated and maladjusted than non-mobile women. She did not fail to point out, however, that group differences were not as marked as her initial hypothesis had assumed them to be. Nevertheless, up to and including the 1950's, compared with the huge interest in male mobility processes, studies on females received minor attention.

The interest in the role of the mother in social mobility starts to rise during the 1960's, but large scale empirical research on the subject was not to appear until the 1980's. We see that including the socioeconomic background of the mother provides insight into, for instance, the process of status formation (Vellekoop 1963), family ranking (Barth & Watson 1967), or drug and alcohol abuse of children (Haug 1973). Starting from 1970, some theoretical objections to traditional models of status attainment are raised. Research appears that opposes conventional assumptions (Acker 1973), postulates more extended models (Falk & Cosby 1975) and questions whether male-based results are applicable to the occupational outcomes of women (van Doorne-Huiskes 1984, Hörning 1984). Despite all these activities, Acker concludes in a literature review on women and stratification: until 1980 "[s]tratification theory has been a theory of white males" (1980, p.33). Let us now see whether, two decades later, her conclusion is still valid.

1.4.1 The Influence of the Mother's Socioeconomic Background

Investigations on how the mother's status background relates to her children's status attainment are up to this day dominated by the North-American literature. However, the pioneering study carried out in the USA to measure the importance of status transfer between generations, Occupational Changes in a Generation (OCG) of Blau and Duncan (1967), described in detail above, dealt only with sons and their fathers. After the accusation that the field of social stratification is 'a case of intellectual sexism' (Acker 1973), an increasing number of researchers started to include women in their studies on educational and occupational mobility.

According to the classical status attainment model, the influence of family background on children's status attainment unfolds on three different levels. The educational attainment of children is influenced by the educational level *and* occupational status of parents. The occupational status of the child is influenced *only* by the occupational status of parents. Parental educational level has no influence on the occupational level of children (Blau & Duncan 1967, De Graaf & Luijkx 1992). The main body of research that focuses on the influence of the mother's status has chosen to study either the influence of the mother's education or her occupational level.

1.4.1.1 The Mother's Influence on Children's Education

The extent of the influence of the mother's education on children's education varies from study to study, though overall she has been found to have a marked impact. In the *OCG* the effect of the

mother's educational level on the education of her son was as large as that of the father. Many studies report that parents' educations affect children of both sexes, but that the mother has a stronger impact on her daughter than on her son (Treiman & Terrell 1975, Marini 1978, Peschar 1987, Miller & Hayes 1990, Crook 1995, Van der Lippe et al. 1995). Sewell et al. (1980) show that mothers are important only for daughters and do not affect their son's education at all. These results have led in one case even to an exclusion of sons from the empirical study (Hayes & Miller 1989). The latter study shows that the father's education is more important than mother's education for determining the education of daughters.

Other studies suggest that the influence of both the mother's and father's educational background remain important for sons and for daughters. This has been found for the USA (McClendon 1976, Holland Baker 1989, Kalmijn 1994), Germany (Henz 1995) and some socialist countries (Peschar 1987, Hanley & McKeever 1996). For five socialist countries, Hanley and McKeever record an equal increase in the influence of both parents' education on children's education (1996). To summarize, the evidence supporting the same-sex role model is as large as the evidence rejecting it.

Trend analysis in the Netherlands suggests that historical changes regarding the influence of parental education on children's education are taking place. The mother's educational background, compared to the father's educational background, has gained influence between 1950 and 1980 (Bakker & Cremers 1994, Van der Lippe et al. 1995), partly compensating for the diminishing effect of the father's background during that time. An assumption that may explain this fact is that mothers are gaining power in family relationships because of their increasing economic independence and because of their increasing level of education.

If the mother's influence is growing because of her increased economic independence, then the impact of her *occupational status* on the educational attainment of her children should also increase. This relationship has indeed been established in the USA. According to Kalmijn (1994), the relative influence of the mother's occupational status compared with the father's on the education of children has increased over time. No significant trend over time for the influence of the mother's job on children's education was found for socialist countries (Peschar 1987, Hanley & McKeever 1996).

However, empirical work regarding the influence of the mother's occupational status on her children's educational level has been more scarce than on her educational status. For the Netherlands, Dronkers (1992, 1995) demonstrates that the mother's occupational level affects both her son's and her daughter's educational attainment positively and that working mothers have better educated children than homemakers. This study shows, however, that there may be one exception. If the mother has a blue-collar occupation, then this affects her child's educational attainment more

negatively than if she is a homemaker. For the latter case, Dronkers concludes, the child is better off if the mother is a homemaker.

Studies that measure parents' occupational status on a continuous prestige or status scale find a significantly positive relationship between children's education and mother's and father's job status (Treiman & Terrell 1975, Holland Baker 1984, Hayes & Miller 1989, Miller & Hayes 1990, Crook 1995). Sometimes sex-role patterns are found, sometimes not. Whereas in Treiman and Terrell's (1975) early study, by the mother's job only her daughter's but not her son's education is affected; other studies find no sex differences (Hayes & Miller 1989, Miller & Hayes 1990, Crook 1995). Almost all above cited studies imply that the effect of the occupational status of the mother on the education of children is about half that of the effect of father's occupation (see for an exception: Holland Baker 1984).

At this point it is safe to conclude that we can expect the mother's socioeconomic background to profoundly and significantly influence the educational attainment of her children independent of the father. This is true for mother's educational as well as for her occupational status. However, with regard to the influence of her occupational level on the education of her children, the literature leads us to expect that the influence of the mother is less than that of the father.

1.4.1.2 The Mother's Influence on Children's Occupation

Two different methods are used in the literature to determine the occupational influence of the mother on children's occupational choice. The main body of research uses bivariate mobility tables; that is, the occupations of mothers are grouped into six to eight different types, e.g. professional, managerial or clerical, etc. Subsequently the diagonal cases, representing inheritance, are compared with the off-diagonal cases. Often this is done only for mother-daughter dyads (Pearson 1983, Hayes 1987, Hayes 1990). If the influence of the father is excluded, strong inheritance effects are found between the mother's occupational class and her daughter's job destination. If the father's occupational class is included, studies show that his job is very important also but that the mother's job remains a strong predictor of the daughter's occupational destination (Rosenfeld 1978, Aschaffenburg 1994, Khazzoom 1997).

Aschaffenburg (1994) points out that the status inheritance between blue-collar mothers and daughters is greatest. Mothers working in professional or managerial positions set more of an example for their sons than for their daughters. On the other hand, mothers who have entered into non-traditional (i.e. less female-typed) occupations are more highly related to their daughter's occupation than mothers working in traditional occupations. She concludes that the mother's occupational status is important both for sons and daughters, but that the reasons why differ between the sexes. This conclusion is shortly thereafter challenged by Khazzoom (1997). In contrast to Aschaffenburg's premises (1995), Khazzoom reports that if the mother is working in a

professional position, the daughter is most likely to work in such an occupation too. This effect is doubled if the father is also working in a professional position. Interestingly, Khazzoom also shows that the decrease of the father's background influence, usually reported in over-time comparisons, diminishes if the mother's occupational background is included in the analysis.

The second method used is to place the mother's influence into the classical model of status attainment (Blau & Duncan 1967). Mobility tables, although showing the total inheritance effects between generations, neglect to control for the effects of one's own individual achievements, i.e. the children's own educational level. Here evidence becomes scarce. As the present study works along this paradigm, results of studies using the classical model of status attainment are very relevant. Treiman and Terrell (1975) estimated the net effects of the mother's job status on daughters' occupations and found a significantly positive relationship. Other studies have replicated this finding (Hayes & Miller 1989, Crook 1995). Henz shows that the mother's occupational background was important only for women in an earlier period, born in the 1930's (1996). She concludes that for younger cohorts and for sons particularly, the mother's occupational status has no direct impact. On the other hand, a Canadian study by Steven and Boyd (1980) goes so far as to suggest that the knowledge of the father's occupation is superfluous when predicting the daughter's occupational destination. Among all other results produced, their conclusion can be regarded as an exceptional one.[6] Despite these contradictions in almost every study, we see that mother's job status is less important for predicting the occupational outcomes of sons as compared with daughters (Holland Baker 1983, Stevens & Boyd 1980, Henz 1997, Khazzoom 1997, but for the exception: Aschaffenburg 1994).

Most of the above studies suffer from severe limitations, though. For example, Treiman and Terrell (1975) do not control for the influence of the father's occupational status on the daughter's occupational status. Holland Baker (1984) does not use a representative sample to investigate the effects of parental background. Her data is limited to a small sample of mothers who gave birth to a child in 1948 or 1949 in one 'typical Midwestern city' (p.239). Hayes and Miller (1989) limit their study to daughters only. Henz's (1995) study, although using a representative sample, suffers from a small sample size.

None of the studies mentioned above use the first occupational status of children, after they have finished their formal schooling, to study the influence of the mother. Only the child's present occupation at the time of the interview is considered. This point may seem negligible, as former and later occupational status are closely related. However, in a study on the influence of the mother's status, looking only at current jobs has profound disadvantages. The most prominent disadvantage is that the influence of parents is likely to taper off as the occupational career of the child continues. The second disadvantage is that many daughters possibly have intermittent occupational careers

6 See also another study by Holland Baker (1984) who suggested that mother's occupational status affects her daughter's occupational status negatively; that is to the other extreme .

because of family obligations. Therefore the results regarding the influence of the parents on sons' and daughters' job status later in life may suffer from serious bias, as their attained job status later in life, strictly speaking, may not be comparable.

Results so far have not produced an unequivocal picture. Cross-national comparisons on the influence of maternal educational and occupational level on the occupational status of sons and daughters have, to my knowledge, not yet appeared. Furthermore, models and measures of the influence of maternal background vary greatly between the studies and complicate the assessment of their outcomes.

1.4.2 Women and Class: The British Debate

The discussion on how to include women in studies on social inequality has been handled in two essentially disconnected manners. In the USA the focus was on the size of maternal status transfers on the children's educational and occupational attainment. Within the British research tradition, theoretical implications and empirical findings have focused on whether, and if so, how, to include wives into the study of the class position of families. The following debate is interesting, because it reveals some of the conservative attitudes that prevailed up until 1980 in the research community which occupied itself with studying intergenerational occupational mobility. However, this debate must not be viewed from merely an observational point. At a later stage in the British debate some new theoretical ideas were developed which tried to solve the problem of how the measurement of parental background could be optimized. These British models are quite useful for the current study while placing the mother and her influence at the centre of this inquiry into social inequality, in addition to the influence of the father. Some years passed, though, until the discussion had reached this point of departure.

One of the most cited studies of British research on class formation in the early 1950' completely lacks any reference to women. In a nationwide study of Britain in 1949, Glass (1954) used only the status of the father or the husband to study class relationships. Information on the status background of wives was available from the questionnaires, but ignored. Later they let this information be destroyed (as is a routine procedure in civil service practice) before carrying out any analysis. Nowhere do Glass et al. claim to have tested their implicit assumption why they ignore women's own class positions; that is, that women stop working after childbirth. However, this and the assumption that the distribution of women among jobs is different from that of men will later become widely disputed subjects: "In our society, [...] the occupations held by women tend to be of lower status than those which men of a comparable background and education would be willing to accept" (Glass 1954, p.178). Almost three decades pass until a full-fledged discussion started on these issues.

Initially, the main argument for the inclusion of wives is that their employment is disproportionally more important for households with an unskilled or manual head than otherwise,

because wives' economic contribution is so much more important in these families (Garnsey 1978). Despite some outcries against employing "double standards" (Haug 1973, Delphi 1981), these predictors continued to be used. Slowly, however, the tide turned and researchers started to ask whether "women's jobs 'make a difference'" (Britten & Heath 1983, p.56). They conceded, that "[...] the classification of social class which takes women seriously is both easier and more effective than conventional wisdom has allowed" (*ibid.*, p. 60). Two problems remain. The first issue is how to make occupational scales comparable for men and women. The second question is, how to deal with cross-classified families that have resulted from the inclusion of wives' class backgrounds into the analysis.

Before these problems were tackled, Goldthorpe (1983, 1984) launched his widely cited defence of the conventional view. He contends that the wife's contribution to her family's class position through her earned wage is minor, compared to her husband's, and that the wife's employment generally ranks below her husband's employment (Goldthorpe 1983, p.473ff.). By claiming that the member of the household with the highest status determines the market position of the family, he dismisses the issue of working wives as a minor problem for the conventional view of class analysis. His allegations were swiftly answered.

After a re-analysis of Goldthorpe's data, Stanworth (1984) concludes that the wives' subordinate classes are systemic, rather than negotiated within the family. What is more important, Heath and Britten (1984) undertake a first attempt to reclassify wives' occupations and single out their impact on fertility decisions and voting behaviour. Methodologically speaking, the problem is that women often work in clerical, non-manual white collar jobs, but as "lower grade" employees, an occupational background so far overlooked in occupational class typologies (e.g. Goldthorpe 1987). They show that "[...] the women's own qualifications are *more* important than their husband's class as an explanation of their career paths" (Heath & Britten 1984, p.486, emphasis by authors).

A modification of the conventional paradigm is the 'dominance' model (Erikson 1984). Erikson argues that if we relate the market positions of a family to the person with the highest class background, the husband's background is the correct basis of the analysis only if his wife holds an inferior class position. Following his suggestions, Goldthorpe and Payne (1986) concede that the mobility of women is "grossly impaired" if they apply the conventional view, because women then display downward mobility much more often than men (p.548f.).

The next issue tackled, is the problem of how to deal with cross-class families. It was initially studied using qualitative analyses (McRae 1986, Leiulfsrud & Woodward 1987, 1988). From these studies the impression emerges that cross-class families, where one spouse holds a class position diametrically opposed to the other, have a different sort of class behaviour, other cultural resources and power relationships different from homogeneous class marriages. At this point, the idea of a 'joint' classification emerges (Marshall et al. 1988). A few years later Graetz (1991)

introduces an empirical strategy and Sørensen (1994) a theoretical model for the joint classification (for further details see Chapter 2).

1.5 Specific Objectives of the Research and Research Questions

Up to this point, it has been established that a child's status attainment is profoundly influenced by her or his mother's status background. As stated before, the primary goal of the current study is a systematic approach to the analysis of the influence of the mother's status background, in relation to that of the father's, on children's educational and occupational status attainment. In this respect it will be of particular to see interest how the relationships in the classical status attainment model change if we add the mother's influence to that of the father. As an overriding research aim we can identify the problem of whether and *how* the mother influences her children's status attainment and now proceed to specify this term more closely.

The first basic question is the extent of the mother's influence and whether or not she has an influence on the status attainment of her children at all. In the second instance, the influence of the mother is compared to the influence of the father, because he is known to be an important source of the transfer of status resources. The current study answers how the mother, in relation to the father, influences the status attainment of children. The third question is how far the mother's status background has a special impact on her daughter, as compared to her son's status attainment. The focus is on the importance of the sex-role model for intergenerational status transfer. The fourth question is how the mother's influence has changed *over time*, in relation to that of the father, because the increase of maternal status resources in recent times may have caused some changes in trends in intergenerational status transfer.

Chapter 2 and 3 of this book contain empirical studies on how the mother's education and occupational status influence children's educational attainment. In Chapter 2, the problem to be solved is how the influence of parental background can be modelled most efficiently. In the literature reviewed above we have seen that various concepts exist. These various concepts have not yet been put to an empirical test that would allow for a comparison of their explanatory power. Therefore, upfront the analysis seeks to show which is the best model to measure the impact of social origin on status attainment, if, in addition to the father, we also study the influence of the mother. The requirements the empirical model has to meet are straightforward. Both parents' education and occupation should be considered, together with historical trends of the influence of social origin. The latter is decisive for a study of social inequality, if we want to be able to judge the development of how important the mother has been, compared to the father, on the process of stratification. Up until now it remains unknown how the influence of her occupation in addition to her educational level has developed throughout recent history.

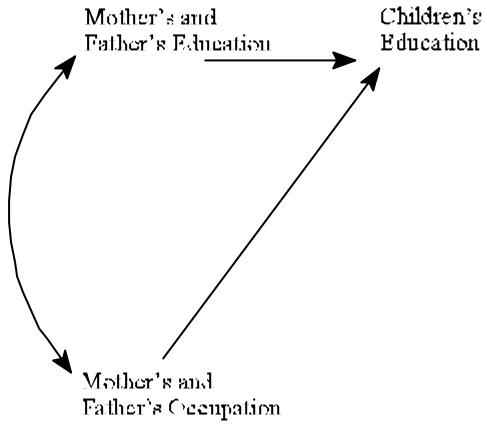


Figure 1.8 The Influence of the Mother on the Education of Children

Analyses so far have been restricted to including the influence of the mother's education only (Bakker & Cremers 1994, Van der Lippe et al. 1995, both for the Netherlands). Thus, the mother's impact is best documented for the educational attainment of her children. Studies that include both the mother's education *and* her occupational status have remained scarce and nationally restricted (Kalmijn 1994, Henz 1995). Although large scale international comparisons of the influence of the father on the educational attainment of children have appeared frequently in recent years (Treiman & Yip 1989, Shavit & Blossfeld 1993, Rijken 1999), a similar approach that includes the influence of the mother is still awaiting application (although see for socialist countries: Hanley & McKeever 1996). Based on the evidence found so far, we can expect a significant effect of the mother's education and occupation, independent of the father's socioeconomic background (Kalmijn 1994, Crook 1995). The resulting paths in the status attainment model are drawn in Figure 1.8. The main issue covered by the second chapter is how the mother, in addition to the father, influences children's educational attainment. The focus is on the following research questions:

(a) *What is the most appropriate model to study how mother's, in relation to father's socioeconomic status has influenced children's educational attainment over recent decades?*

(b) *How do conclusions about less educational reproduction change if, in addition to the father, the influence of the mother's socioeconomic status is also considered?*

In Chapter 3 a more theoretical research question will be answered. For several years now there has been a debate on the question of whether it is better for a mother to stay home and care for her children instead of taking up out-of-home employment. The scientific and public argument opposed to maternal out-of-home employment holds that the restricted time of employed mothers may have a negative impact on children's school attainment. On the other hand, status attainment research shows that a linearly positive relationship exists between mother's job status and the education of her children.

Because the mother is the main attender of the children, it may be the case that for mothers, other than for fathers, not only are their status resources important, but also their time restriction may influence the educational attainment of their children. Up until now it has remained unresolved just to what extent these two factors weigh for the educational attainment of her children. It may be the case that the socioeconomic resources of the occupational status that an employed mother has

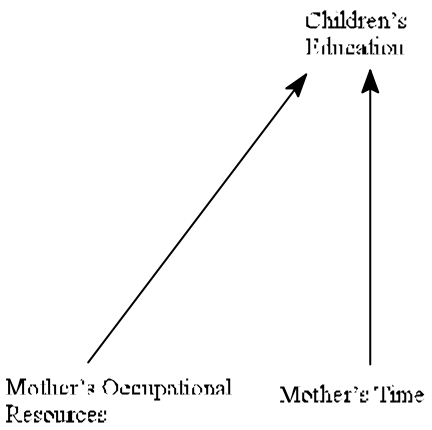


Figure 1.9 The Influence of the Mother on Children's Education: Considering Time Constraints

acquired compensate for many of the negative effects of labour market participation per se. Here the relationships as shown in Figure 1.9 are studied. Although the main issue is again the influence of the mother on the educational attainment of her children, the research question here is explanatory and reads: *How heavily do the time restrictions, caused by the mother's employment, and her occupational resources influence children's educational attainment?*

The focus in Chapters 4 and 5 is on mother's influence on the occupational status attainment of her children. Commonly studies that analyse the size of intergenerational occupational status transfer use the current, not the first, occupational status of children. Some disadvantages that are connected to this strategy have already been discussed above. One of the advantages of our approach is the high probability that adult children of either sex will have at least one entry job after they finish their school. As child rearing responsibilities are likely to occur later in life, the comparability between men and women's entry positions is high.

Indications exist that the same-sex role model may be important for the occupational attainment of children. In Chapter 4 an explicit empirical test will be carried out regarding this expectation. However, children may be inclined to follow their parents' example not only regarding their occupational status. When studying the influence of the mother's job on her children's jobs, considering the effect of occupational sex-typing may be important, too. Women seem to be much more disadvantaged by the sex-typing of their job than men. The mother's occupational sex-typing may form a second opportunity for status transfer that determines her children's occupational status attainment. Figure 1.9 shows which of the paths in the status attainment model are used in Chapter 4. The main issue in this chapter is how intergenerational transfer patterns of occupational status and sex-typing change, if we add the mother's background to the classical model of status attainment. The following research questions are answered:

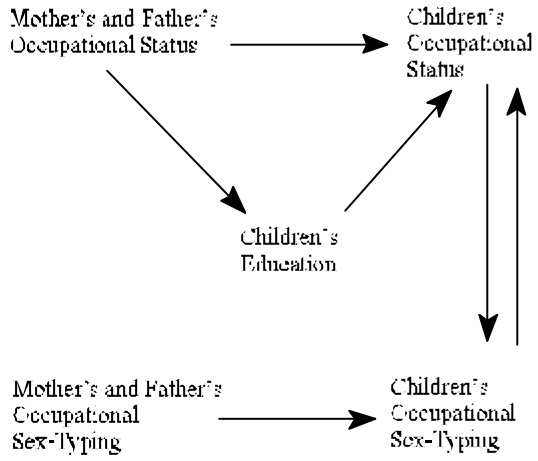


Figure 1.10 The Influence of the Mother's Occupational Status and Sex-typing on the First Occupation of Children

(a) How does the status and sex-typing of the mother's, in relation to the father's occupation influence the status and sex-typing of the occupations of daughters and sons?

(b) How have these relationships changed over time?

If we want to observe how the influence of the parents develops during children's careers we have to consider the child's career dynamics. For instance, knowing when the child held what kind of status during her career is important, but knowing how her job transitions are influenced by her social origin provides additional insights. Although life history techniques have now been around for several decades, they have not yet been widely applied to study the influence of the mother and the father in a dynamic perspective.

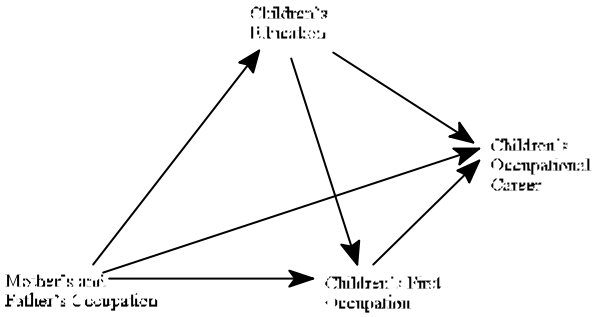


Figure 1.11 The Influence of the Mother on the Occupational Careers of Children

Studies almost unanimously point to the fact the mother's occupation has a stronger impact on her daughter than on her son's occupational location. Some researchers have suggested that daughters remain closer to their mother's occupational location, than sons to their father's occupational location, as their careers advance (e.g. Dex 1987, 1990). Possibly the stronger orientation towards the example set by the mother partly explains why women, compared to men, often end up further down the scale at the end of their career. Figure 1.10 shows which part of the status attainment model is studied in Chapter 5. The main issue for this chapter is how the mother's occupational background, in addition to that of the father, affects the occupational career of the daughter. The last set of research questions read:

(a) How do parents' role models affect the occupational career of the daughter?

(b) How has the influence of the mother's occupation, compared to that of the father's, developed over time?

1.6 Data

The empirical data used in this study had to fulfill two main requirements: they had to include a good measurement of the mother's educational *and* occupational status, the latter measured by a detailed code, in order to compile an occupational status score. For Chapters 4 and 5 the data had to cover respondents' first occupational title after leaving school and their full occupational careers. Such data are in fact quite rare. Where possible, I use cross-national data for replicational purposes by pooling them, to increase the statistical power and conceptual generalisation of the research design. Cross-national comparisons are not made. Due to the empirical restrictions encountered while work

was in progress, two of the chapters (Chapter 3 and 4) nonetheless had to be confined to a national, Dutch perspective.

Most of the studies in this book cover an extended historical period to assess whether historical changes have taken place. Except for Chapter 3, all other chapters take this historical perspective on how the influence of the mother has developed over time. If the research question is geared towards a trend analysis, the extent and the direction of how the influence of the mother has changed historically can be studied by separately measuring her influence in subsequent cohorts.

The data used in Chapter 5 are so-called 'life history data'. The label 'life-history data' indicates, that for all respondents it is known when they finished their school, what their educational level was at the time they quit school, when they first entered the labour market, what their first occupational status was, when they quit their first employment and started their second job, what their next occupational status was, etc. It means that entire individual educational and occupational careers up to the time of the interview are mapped out. The advantage of life-history data compared with cross-sectional data is that we can study on an individual basis what causes some persons to have occupational transitions. A disadvantage of these data is that the further back in time career events have happened, the less the respondent is likely to remember these events correctly and place them into the right time frame. For Chapters 4 and 5, the data had to include a precise measurement of the respondents' first occupational status and in Chapter 5 their occupational career in addition. Hereafter follows a short overview of the data sets used in the empirical chapters.

Netherlands Family Survey 1992-1993

This survey was carried out between 1992 and 1993 and was initiated by Ultee and Ganzeboom at the Department of Sociology at Nijmegen University (Ultee & Ganzeboom 1993). It contains a multi-stage random national sample of the Dutch population between 21 to 64 years. Included are 1000 primary respondents and 800 spouses, sampled from the community population registers. A probability sample was drawn from different Dutch communities, which were selected on the basis of their representativeness regarding their urbanization and region. In the *Netherlands Family Survey 1992-1993* the entire socioeconomic characteristics and the family background of the respondents and their spouses are covered. The respondents gave full accounts on their life history, including their educational attainment as well as their occupational careers, entailing the timing of events, job titles and hours worked at the beginning and the end of a job spell.

Households in the Netherlands 1995

This household survey was carried out in 1995 by the Utrecht Household Seminar at the Department of Sociology at Utrecht University, with as main investigators Weesie, Kalmijn, Bernasco, and Giesen (Weesie et al. 1995). The *Households in the Netherlands 1995* contains

3354 respondents between 18 and 65 years, of which 1321 belonged to a panel study on the social integration of young adults (SI) and 2033 to the original *Households in the Netherlands 1995* study.

Couples are oversampled, which means that the database includes more information on couples than single people, compared with the entire Dutch population. A probability sample was drawn from the address database of the national phone company (PTT *afgiftebestand*). This database from which the addresses were drawn also included unlisted people or people who had no phone in their home. The questionnaire of the *Households in the Netherlands 1995* contained questions on the entire socioeconomic background of the respondent as well as life history data on their educational and occupational careers, in a similar fashion to that in the above study.

German Life History Study

The first survey of the *German Life History Study* contained life history information for the birth cohorts 1929-31, 1939-41, and 1949-51 and was carried out in 1982 and 1983. The main initiator of this study was Mayer at the Max-Planck-Institute for Human Development in Berlin (Mayer 1983). The first survey contains 2171 respondents. The representativeness of the survey was secured in two steps. In a preliminary survey addresses and information on the number of households that would have to be contacted were obtained. In 420 electoral precincts a method called 'random-walk' was used to gather this information (every third household was contacted). In the second step the information obtained was compared with their representativeness in large household surveys. In the interviews subsequently carried out the respondents were asked about their socioeconomic background, and, again, gave full accounts on their life history covering their educational and occupational careers.

The second survey of the *German Life History Study* contained life history information for the birth cohorts 1954-1956 and 1959-1961 (Mayer 1989). It contained 1008 interviews, with an average length of 67 minutes, which all were completed in 1989. The way the representativeness and addresses were secured for the second survey was slightly different from the first survey. Now the target population was selected from people who were listed in the public phone books, which had the disadvantage that anybody who did not own a telephone or was unlisted was not included in the study. It resulted in a slight under-representation of unemployed, apprentices, single people, and people from low income groups. The contents of the interview covered similar subjects to the first survey of the *German Life History Study*, only the target person and no other household members are included in the first and the second survey.

National Study of Families and Households

This household survey from the USA includes interviews with 13,017 respondents which were completed in the late spring of 1988. The main initiators were Bumpass, Sweet, McDonald,

McLanahan, Sørensen and Thomsen at the Centre for Demography and Ecology at the University of Wisconsin, Madison (Sweet et al. 1988). The target population consists of the non-institutionalized adult population in the USA, 19 years and older, with an oversampling of minorities, one-parent families, families with stepchildren, cohabitors and recently married persons. The *National Study of Families and Households* is a national multi-stage area probability sample, drawn from 100 sampling areas in the USA. It also contains questions on the socioeconomic background and educational life history of the respondents, but it does not include questions on the occupational careers of respondents.

The education and the occupation of both parents serve as measure for the socioeconomic background of an individual. Educational levels were made comparable by approximating the number of years it would take the incumbent to reach a certain level. Appendix A of this study shows the procedure that was followed for the Netherlands, West Germany and the USA.

The present study uses the paradigm of socioeconomic status, not class, to investigate the contribution of the mother's occupation to status attainment. The concept of class has the disadvantage of having an aggregation level that is difficult to handle in an analysis of status transfer. Furthermore, the socioeconomic status tends to explain more of the variance in an empirical model than class does. Next, the scaling of occupations into continous socioeconomic classifications is simple to apply in empirical research. Finally, more consensus exists regarding the ranking of occupations into socioeconomic levels than of membership of people to classes (Sørensen 1994, Marshall et al. 1997, Grusky & Sørensen 1998).

Throughout all the chapters the occupational codes (mainly ISCO or CBS occupational codes) of incumbents' jobs are scaled into the "*I*nternational *S*ocio*e*conomic *I*ndex of Occupational Status" (ISEI) for further use in the empirical analysis (Ganzeboom et al. 1992, Ganzeboom & Treiman 1996). Socioeconomic status scales are computed by using the education and the income of employed men to predict their occupational status. In some cases this procedure controls for the age of the incumbent. Other procedures exist to operationalize occupational status (e.g. Bose 1985, Wegener 1992). However, they seldom include an internationally comparative perspective for their status scales.

Occupational status scores which are based on the male employed population, such as the ISEI, have been criticized as not applicable to the female employed population, because females are usually paid less than males, even if they work in the same jobs. However, research comparing male- and female-based occupational scores shows that the correlations are very high, at 0.97 (Bose 1973). Considering the fact that male and female-based status scores seem to be very similar, it appears that the bias for the occupational status scores of the mothers in the data is negligible, given what is gained using internationally comparable measures such as the ISEI.

1.7 Organization of the Study

All chapters have been presented as separate articles at a conference, were published in a scientific journal, or were submitted for publication. Each chapter contains a full research report and can be read independently from the others. Although the organization of this study conforms to the logic of the status attainment model—dealing first with the education, thereafter with the first job, then with the career of the child—to a degree, the theoretical background of the chapters sometimes overlap.

In Chapter 2 five different theoretical notions on how to measure the influence of parental socioeconomic background on children's education are empirically compared. Some additional ideas are proposed for the most efficient measure of parental background.

In Chapter 3 the focus is on the social consequences of mothers' employment for the educational level of her child, because mothers still carry the main burden of raising the children. The time restrictions and occupational resources of employed mothers are used to explain children's education.

In Chapter 4 we study the effects of the mother's occupational level on the first occupational status of her child, male and female, when he or she has finished school. Here we have extended the classical status attainment model to include the occupational sex-typing of the father, mother and child.

Next, Chapter 5 contains a study of the effects of parental occupational background on the daughter's occupational career. As results in Chapter 4 suggest that the mother's occupational background only affects her daughter's occupational attainment, sons are excluded in Chapter 5.

In the last chapter, Chapter 6, the conclusions from the previous empirical chapters are combined for every level of children's status attainment. General conclusions are drawn on the influence of the mother on the process of stratification and some challenges for future studies on social inequality expressed. Table 1.1 offers an overview on the prospective contents of the empirical chapters.

Table 1.1 Contents of Chapters Two to Five

Chapter	Explaining Children's...	Explained by...	Design	Data
2	Education	Mother and Father's Socioeconomic Status	Historical Trends	Netherlands Family Survey 1992-1993 Households in the Netherlands 1995 German Life History Study National Study of Families and Households
3	Education	Time Budgets, Mother's and Father's Socioeconomic Status	Static	Netherlands Family Survey 1992-1993 Households in the Netherlands 1995
4	First Occupation	Occupational Sex-Typing, Mother's and Father's Socioeconomic Status	Historical Trends	Netherlands Family Survey 1992-1993 Households in the Netherlands 1995
5	Occupational Career	Mother's and Father's Socioeconomic Status	Historical Trends, Dynamic	Netherlands Family Survey 1992-1993 Households in the Netherlands 1995 German Life History Study

Chapter 2 Do Mothers Matter? A Comparison of Models for Father's and Mother's Status Transfer on Children's Education[7]

Abstract

Two objectives are met within this chapter. The first is to clarify which model best captures the structure and trend of the influence of social origin on children's education. The second is how general conclusions on educational reproduction change if we add mother's status background to the model. Six contrasting hypotheses are derived from the body of literature dealing with models on families' socioeconomic status. All hypotheses are translated into empirical models and their explained variance compared. A pooled data set is used that contains data from the Netherlands, West Germany, and the USA. The Modified Dominance Model, that distinguishes the influence of the highest from the lowest status parent, has the best model fit. Regarding the second objective of this chapter we see that over time the influence of both parents decreases continuously. Therefore, adding the mother's influence to that of the father's does not change the general conclusions on educational reproduction. However, the influence of mother's education and occupational status on children's educational attainment is substantive.

2.1 Introduction

One of the assumptions often made in mainstream stratification research is that the father's socioeconomic background sufficiently represents his family's socioeconomic position. His status is assumed to determine the family's social position within society. As we have seen in Chapter 1

[7] This chapter has been presented at the *Sociologen Marktdagen* (Utrecht 1999) and at the ISA RC28 Conference *Social Stratification at the Century's End: International Perspectives* (Madison,Wisconsin 1999) together with Harry Ganzeboom and Tanja van der Lippe.

earlier, much of this argument is based on the fact that many mothers do not have a paid job or, when employed, are married to a higher status husband. However, times have changed. A growing number of mothers are employed at one point or another, and the
number of cases where the wife's education or occupational level is equal to or higher than her husband's has increased as well. Therefore, in order not to overestimate the influence of the father in stratification models and underestimate total family influence, it might be advisable to consider the mother's socioeconomic status as well.

The issue at hand is not only *whether* the mother's socioeconomic status (SES) needs to be included but also *how* mother's and father's SES contribute to the educational attainment of their children. In recent decades several models have been proposed, suggesting various appropriate measures (e.g. McDonald 1977, Goldthorpe 1983, Erikson 1984, Acock 1987, Boyd 1989, Sørensen 1994). All these models have different underlying theoretical approaches for the measurement of social origin and all of them lead to different empirical models. In this chapter a basic ranking order will be established for the appropriateness of these theoretical and empirical concepts for modelling the influence of social origin.

In a second instance, by taking advantage of the fact that the same information on the mother's as on the father's status background is included in the model comparison, it is possible to study whether conclusions on historical trends in status attainment are still valid, if the influence of the mother is considered as well. Research on status attainment in the Netherlands including only the father's SES has generally shown that his influence on children's status attainment has been reduced during the recent decennia (Ganzeboom & de Graaf 1983, Rijken 1999). A historical trend continues towards a decrease of educational status reproduction. For the Netherlands, other studies show that the influence of the mother, compared with the father, *in*creases until well into the 1970's (Bakker & Cremers 1993, Van der Lippe et al. 1995). One obvious explanation is that the mother is starting to emulate the role of the father in the process of status attainment. Also, if the influence of the mother's education is considered, the decrease of the influence of the father's SES is less dramatic (Van der Lippe et al. 1995). Previous research in the Netherlands and the USA suggests that the influence of the mother's occupation, too, is non-trivial for the educational success of her children (Dronkers 1995, Kalmijn 1994). Although these studies show that the influence of the mother's occupational status on children's education is substantial, it remains unknown how the influence of the mother's occupation has developed historically.

Because the magnitude of parental status transfer changes throughout history and as parents' educational levels as well as their occupations influence children's education, it is crucial to model both of these dimensions simultaneously. The aim of the present paper is to produce an empirical test to decide which theoretical approach produces the most appropriate model to explain children's educational attainment over time. We use data from three Western industrialized countries—the USA, West Germany, and the Netherlands— to study whether we achieve a better

explanation of the child's educational attainment if, in addition to the father's background, we also consider the mother's SES. The issue of this current chapter is thus twofold, the first is a basic methodological problem and the second a historical issue of inclusion of the mother's impact for predicting children's educational attainment over time. As children's education is a crucial element in their later career chances, the influence of social origin is analysed for this level of their status attainment. The research questions answered are as follows:

(a) *What is the most appropriate model to study how mother's, in relation to father's, socioeconomic status has influenced children's educational attainment over recent decades?*

(b) *How do conclusions about less educational reproduction change if, in addition to the father, the influence of the mother's socioeconomic status is also considered?*

2.2 Theory and Hypotheses

2.2.1 The 'Conventional' View

Until the early 1980's studies in social stratification mainly followed a model, which Goldthorpe (1983) has labelled the 'conventional view'. Within the conventional view, class positions of families are established by including the resources of the father only (Goldthorpe 1983, 1984). This practice is based on the theoretical perspective that life chances are derived from the primary unit of the early human development: the family. The conventional view assumes that the mother's non-employment is part of the family strategy. However, many married women have, at some time or another, spells of employment. According to the conventional view, however, mothers continue to be dependent on their husband's socioeconomic achievement for the greater part of their life. Therefore, only the father's status background determines the social and economic status of the family - or does so to an overwhelming extent. In summary, the conventional view leads to the expectation that only the father's education and occupational status background determines the educational attainment of his children. The mother's status background has no additional influence (*Conventional Hypothesis*).

2.2.2 The Dominance or Power Model

The conventional model coincides with a Weberian view that classes form the encompassing category for members who share similar market and work conditions. Erikson claims that these conditions have "[. . .] consequences also for the consumption level and housing standard, for the way in which children are brought up and the education they are provided with, as well as value commitments" (Erikson, 1984, p.501)—consequently ruling every aspect of the child's life. However, at the same time Erikson relaxes the assumption that we can derive all status positions, consumption levels and housing standards of the family's offspring from the father's status. The 'dominance model' he proposes holds that the member of the household with the highest

socioeconomic status determines the status position of the family. He nevertheless implies that usually the father holds the highest status position. However, if the mother has a higher status occupation than the father, he proposes that she should form the basis of the analysis (Erikson 1984). The power model, proposed earlier by McDonald (1977) is similar to the dominance approach. Its assumptions are that a parent's educational and occupational status relates to his or her power position within the family and that children are oriented towards the more powerful parent. It then follows that the less powerful parent has not much salience for the upbringing of the children. The idea of status dominance, whether it is the mother or the father, means that it is sufficient to consider only the parent who holds a higher status position to cover the socioeconomic status of children's background (*Dominance Hypothesis*).

The theoretical notion of status dominance, though, can be interpreted in another, less strict fashion. Considering the argument of Garnsey (1978), the contribution of the resources of the lower status parent are vital in some families, too, in particular, those with an unskilled or manual head of household. Garnsey (1978) formulates this assumption regarding the consumption level of families. In a way, children's educational attainment can also be viewed as a sort of consumption of parental resources. The exclusion of the non-dominant parent in the 'Dominance Model' may thus present a theoretical misrepresentation of the measurement of the entire scope of parental resource transfer. To test this assumption, the theoretical idea of 'dominance' has to be altered. If the influence of the lower status parent is considered too, then it follows that: it does not suffice to consider only the parent with the higher status position to cover the status background of children, because the lower status parent contributes to the transfer of parental resources to children (*Modified Dominance Hypothesis*).

2.2.3 The Joined Model

As, in general, women are steadily increasing their lifelong attachment to the workforce, Sørensen (1994) also challenges whether it suffices for (future) analysis on status attainment to base the SES of the family on one member of the family only. Reviewing the major studies that deal with the question of whether or not the exclusion of women's social class artificially homogenizes the class position of families, she concludes that "[t]he bias is not large, but it is nonetheless there" (p.45). Following, she opts to use a 'joined classification', an approach based on Graetz (1991) who reinvestigated Erikson's (1984) idea to build 'contrast groups' for the classification of cross-class families. This approach bridges the distance of SES between the two parents. The assumption is that if parents' status positions differ from each other, children tend to be intermediately positioned between their father and their mother's status position. Some qualitative analysis has pointed out that in families where the mother holds a (much) higher job status than the father, the lower ambition of the father acts as an opposing force to the achievement orientation of the children (McRae 1986). The joined classification model allows for these differences to be accommodated by constructing an

average status of fathers and mothers. The leading hypothesis for this model is that the average parental education and occupational status presents the SES background of the child most adequately (*Joined Model Hypothesis*).

2.2.4 The Sex-Role Model

The sex-role model assumes that daughters are oriented towards mothers and sons are oriented towards fathers. This same-sex orientation pattern emerges because of the expert power of the same-sex parent implied by the children (Acock 1987, Boyd 1989). Research on how sex-roles are transferred from one generation to the next confirm that children have a strong same-sex orientation (Smith & Self 1980, Starrels 1992). In many ways sons and daughters take their same-sex parent as a sex-role example for themselves (e.g., Huttunen 1992, Updegraff et al. 1996). Here the leading hypothesis is that compared with the father the mother's educational and occupational status is important only for the daughter and compared with the mother, the father's socioeconomic influence is important only for the educational attainment of the son (*Sex-Role Hypothesis*).

2.2.5 The Individual Model

Through increased female labour market participation mothers have gained not only financial resources but also have tilted the authority relations within the family, away from the father, towards the mother (Lopata 1994). The assumption here is that the mother has increased her influence at home regarding crucial questions on, for instance, where the child ought to go to school and how long it should attend school. The approach assumes that it is the contribution of each parent individually that influences the educational success of the children. Accordingly, their attributes should be considered on an individual basis. This concept has become known as the individual model (Acker 1973, Erikson & Goldthorpe 1993, Sørensen 1994). Here the hypothesis is that both the mother's and father's statuses influence the educational attainment of their children (*Individual Hypothesis*).

2.3 Data and Methods

2.3.1 Data

Data for three western industrialized countries are used to compare the outcomes of the proposed models above: the Netherlands, Germany, and the United States. The USA is represented by the first wave of the National Study of Families and Households (NSFH). The NSFH is a national multistage area probability sample. The survey for the wave we use here was completed in 1988. The design of this study is cross-sectional, though it has several retrospective sequences (Sweet et al. 1988). The German Life History Study (GLHS) represents West Germany, as only respondents from West Germany entered the sample. This selection insures that the economic conditions in which the respondents have grown up

remain comparable to the other two countries. The first survey of the GLHS that we use contains life course information for the birth cohorts 1929-31, 1939-41, and 1949-51 and was completed in 1983 (Mayer & Brückner 1989). Information on two more cohorts was added in 1989, when respondents born between 1954-56 and between 1959-61 were surveyed (Brückner & Mayer 1995). Together it is a representative probability sample with an explicit cohort sampling design. For the Netherlands we match two household surveys, the Netherlands Family Survey 1992-1993 (FAM) and the Households in the Netherlands 1995 (HIN). Both studies contain stratified random national samples of the Dutch population. It is important to notice that the three countries are used as replicates. This implies that, although our model allows for differences regarding educational expansion at the national level, cross-national differences in status attainment are neither studied nor interpreted. The databases are weighted in all four sets of data.

Table 2.1 Ranges, Means and Standard Deviation of the Variables in the Analysis

Abbreviation	Contents	Ranges	Means	SD	Contents
FEM	Male/Female	0,1	0.52		Respondent's sex
BYR	Year of Birth	0.0 - 1.0	0.65	0.27	Rescaled from 1923-1962
FIS[a)]	Father's ISEI	1.0 - 9.0	4.20	1.60	ISEI Divided by 10
MIS[a)]	Mother's ISEI	1.0 - 9.0	4.10	1.54	ISEI Divided by 10
EDU	Respondent's Education	1-19	12.30	3.01	Years of Education
FED[a)]	Father's Education	1-19	10.30	3.60	Years of Education
MED[a)]	Mother's Education	1-19	9.80	3.13	Years of Education
HOM	Mother is a Homemaker	0,1	0.42		No Occupational Code for the Mother

Source: NSFH 1988; GLHS 1983, 1989; FAM 1993; HIN 1995.

[a)] Several abbreviations of these variables are used, to offset their different operationalizations in the models; for an overview on the abbreviations for the influence of social origin used in the models, see appendix C.

For all countries the parents and the respondents' educational and the parents' occupational backgrounds are surveyed. For the sake of comparability, the analysis is limited to respondents born between 1923 and 1962 with a valid entry for their final educational level. We analyse how the mother's status background in addition to the father's influences the educational attainment of their

child, measured in years. For the Netherlands and Germany[8] a year-proxy variable measures the educational level of the parents and the respondent (see appendix A). In the data from the USA, the respondent's and the parents' educational level were already coded into years of education. The mother and the father's occupational status are scaled by the 'International Socioeconomic Index of Occupational Status' (ISEI) (Ganzeboom & Treiman 1996).

The ranges, means and standard deviations of the respondents' and their parents' education and occupational status are illustrated in Table 2.1. The educational level of the respondents, averaged over three countries, is higher than the educational level of their parents. Father's education is higher than mother's. Only in the USA does the educational level of the mother exceed that of the father (table not shown).

Of all mothers in the data, 42% are homemakers, with no occupational code of their own. The highest percentage of homemakers is found in the USA, with 49.0%. Germany and the Netherlands have approximately half as many homemakers with 26.0%, respectively, 24.0% (table not shown). This between-country variance is due to the way respondents were asked about the occupational title of the mother. In the survey of the USA only one question was asked, whereas the survey for Germany and the Netherlands included two questions.

The surveys in Germany and the Netherlands contained a question about the occupation of the mother when the respondent was 14-16 years old. The survey in the USA included only a question on the mother's occupation when the respondent was under 18 years old. If the mother has not worked during that time, the surveys in Germany or in the Netherlands contained a second question, asking what occupational title the mother held before she quit the labour market or before her marriage. When excluding parents without a valid entry on their educational and occupational background 7559 valid cases remain, 3583 from the USA, 2092 from Germany, and 1884 from the Netherlands. Otherwise, when including homemakers, 13148 valid cases remain for the analysis, of which 6552 are from the USA, 3468 from Germany, and 3128 from the Netherlands.

Whenever homemaking mothers enter the model, the country-specific mothers' mean ISEI value substitutes the missing value for the occupational status of homemakers. Simultaneously her effect is controlled by a dummy variable (Cohen & Cohen 1975, pp. 274). We perform the analysis both excluding and including the group of homemaking mothers. Because homemakers do not hold an occupational title of their own, we exclude them in the first step. Nevertheless, it may be that they exert a separate influence and therefore, in a second step, they are included. To analyse trends over time, we include the year of birth of

[8] In Germany teenagers usually enter vocational training after finishing school. If someone had completed vocational training ('Lehre') they received two additional years of schooling (see also: Blossfeld & Jaenichen 1990).

the respondent as a linear trend, but rescale it to range between zero and one. The interaction term shows how the influence of the mother and the father has developed for the most recent cohort, while the mother's and the father's main effects refer to their influence on the oldest cohort.

2.3.2 Models and Fit Measures

The hypotheses have to be operationalized in order to be tested. Table 2.2 shows the abbreviations, contents and range of the variables in the analysis and offers a short model description. The various operationalizations of the mother's and the father's SES are indicated by the name of the variable. Every model includes an interaction between the main parental status variable and the respondent's birth year to model the historical trends of parental status transfer. These interactions are indicated by a star (*). Note that whenever an interaction enters the model, it is implicit that the main effects have also entered the model. In some of the models, equality constraints are applied to the main effects or historical trends for the mother's and the father's influence. Equality constraints imply that the influence of the one variable resembles that of the variable to which it is set equal. If equality constraints are applied, they are indicated by a mathematical equal sign (=).

All hypotheses are estimated in three steps. The set of models (A) comprises a comparison regarding the influence of parental *education* on the children's educational background. The set of models (B) is a comparison analysing the influence of parental occupational status on children's education. The set of models (C) combines the sets of models (A) and (B) and analyses the influence of the educational *and* occupational level of the parents. The analyses were carried out in this fashion in order to study whether the patterns of influence of parental education differ from the influence of parental occupational status. The baseline model ('B_0' in Table 2.3 through 2.6) controls, in a three-way interaction, the effects of respondents' birth year (BYR), country (CNR), and gender (FEM).

The empirical estimation of the Conventional Model is the most straightforward. We simply measure the size of status transfer throughout history by the father's socioeconomic background (1). However, here we also show what happens if, instead of the father, we use the mother's SES to cover the influence of social origin (2).

The Dominance Model is also estimated in two steps. First, only the historical trend of the influence of the dominant parent, i.e. the parent with the highest status background, is estimated (3). By contrast, also for the non-dominant parent, the parent with the lowest status background, the historical trend of status transfer is calculated (4).

To operationalize the Modified Dominance Model, we allow the influence of the dominant *and* non-dominant parent to unfold in the model simultaneously (5). In a second step, the main effects of the highest and the lowest status parent are modelled separately, but equality constraints are applied to their historical trend (6).

Table 2.2 *Empirical Models for the Comparisons of How Parents' SES Influences Children's Education*

		MODEL[a)]		
DEFINITION	No.	Parents' Education (P.E.) (A)	Parents' Occupation (P.O.) (B)	P.E. & P.O. (C)
Baseline Model	(0)	BYR*FEM*CNR[b)]		
Father's (or mother's) SES represent parental SES .		*Conventional Model*:		
	(1)	(0) +FED*BYR	(0) +FIS*BYR	(A1) + (B1)
	(2)	(0) +MED*BYR	(0) +MIS*BYR	(A2) + (B2)
Highest or lowest parent represent parental SES .		*Dominance Model*:		
	(3)	(0) +HS_ED*BYR	(0) +HS_IS*BYR	(A3) + (B3)
	(4)	(0) +LS_ED*BYR	(0) +LS_IS*BYR	(A4) + (B4)
Highest and lowest parent represent parental SES.		*Modified Dominance Model*		
	(5)	(3) +LS_ED*BYR	(3) +LS_IS*BYR	(A5) + (B5)
	(6)	(5) +HS_ED*BYR=LS_ED*BYR	(5) +HS_IS*BYR=LS_IS*BYR	(A6) + (B6)
Father's and mother's SES are set equal to each other.		*Joined Model:*		
	(7)	(0) +FED*BYR=MED*BYR	(0) +FIS*BYR=MIS*BYR	(A7) + (B7)
Same-sex and/or different-sex parent represent parental SES.		*Sex-Role Model*:		
	(8)	(0) +SS_ED*BYR	(0) +SS_IS*BYR	(A8) + (B8)
	(9)	(0) +DS_ED*BYR	(0) +DS_IS*BYR	(A9) + (B9)
	(10)	(8) +DS_ED*BYR	(8) +DS_IS*BYR	(A10)+(B10)
	(11)	(10)+SS_ED*BYR=DS_ED*BYR	(10)+SS_IS*BYR=DS_IS*BYR	(A11)+(B11)
Father's and mother's SES represent parental SES		*Individual Model*:		
	(12)	(0) +FED*BYR + MED*BYR	(0) +FIS*BYR + MIS*BYR	(A12)+(B12)
	(13)	(12)+FED*BYR=MED*BYR	(12)+FIS*BYR=MIS*BYR	(A13)+(B13)

[a)] For an explanation of the abbreviations used see appendix C.

[b)] Wherever an interaction effect is used, it is implicit that the main effect is also included in the model.

The Joined Model has only one model variation. The main effects of the father's and the mother's SES and also the historical trend are constrained to be equal. The results of this model is the average impact of the mother and the father (7).

The operationalization of the Sex-Role Model results in four empirical models. The first model includes the effects of only the same-sex parent (8). As a contrast the second

model uses only the influence of the different-sex parent (9). The third model simultaneously includes the influence of the same-sex and the different-sex parent (10). The fourth model constrains the historical trends of the influence of the same-sex and the different-sex parent to be equal (11).

The implementation of the Individual Model allows two sorts of models. The first model uses the influence of the mother's and the father's educational and occupational background and their historical trends to predict the child's education (12). All four of these effects are measured separately. In a second instance, the historical trends of the mother's and the father's influence are set equal to each other, whereas their main effects are still measured separately (13).

Stata's constrained linear regression models (CLR), that allow for constrained effects to be set equal to each other, are used to estimate the models. In order to conclude which model offers the best estimation of the effect of the mother and the father on the educational attainment of their child two comparative fit statistics are used. First, as proposed earlier by Erikson (1984), the amount of explained variance, the adjusted R^2, is a good fit measure, although not a formal test for significant differences. The adjusted R^2 corrects the explained variance in the model by accounting for the degrees of freedom used. An increase of the adjusted R^2 always implies a better fitting model. Secondly, the models 'sum of squares' (SS Model) are compared. The model with the highest sum of squares, taking into account the degrees of freedom (DF) used, performs best of all. We can establish a ranking order of the models by using the following F-test,

$$\frac{(SS\ Model_A - SS\ Model_B) / (DF_A - DF_B)}{MS_{err}} > 3.84$$

where $model_A$ is the one with the higher number of degrees of freedom used. If the number in the denominator is roughly four times as large as the numerator, $model_A$ performs better than $model_B$. Otherwise $model_B$ is the preferred model, because it is more parsimonious. The model sum of error (MS_{err}) is taken from the best fitting model. This test statistic is used as a rough indicator, to compare non-nested models as well.

2.4 Results

2.4.1 Model Comparisons

Table 2.3 contains the results of our model comparisons. The observed sum of squares and adjusted R^2 give an indication of the model fit of the models (A), (B), and (C). The above described F-test is used for indicative purposes only, to establish a ranking order for the fit of the models. As most homemaking mothers hold a school degree but no occupational title, their exclusion leads to a decrease in the number of cases in the set of models (B) and (C), compared with the number of cases in the set of models (A).

First of all, we look at the results of the influence of the educational parental background on the educational attainment of the children. The two models are derived from the *Conventional Hypothesis*. Comparing model (A1) and (A2) we see that it is far better, when using the Conventional Model, to include the father's education rather than the mother's education. Note that

for the influence of both mother's and father's education separately, there is clear evidence of a downward trend towards less educational reproduction throughout time (model A1 and A2).

Model (A3), the Dominance Model, considers only the highest parental SES while neglecting the influence of the lower status parent's SES. It performs better than the Conventional Models. Yet, although superior to the Conventional Model (A1, A2), most of the other models in this table fit the data better. When we compare the fit statistics for the influence of the dominant parent (A3) with the non-dominant parent (A4), the former explains more variance than the latter.

By comparing model (A5) with model (A3) we observe that it is best to consider the influence of both the highest and the lowest parental SES, as done in the Modified Dominance Model. It is even better, however, to use the Modified Dominance Model and constrain the historical trends of status transfer to be equal for the dominant and non-dominant parent (A6). This model uses the smallest number of degrees of freedom compared to its sum of squares and also has the highest explained variance.

The performance of the joined model (A7) suggests that it is also a good model solution if we jointly model the impact of the education of the father and the mother on the education of their child. It proves to be superior to the Conventional Models (A1, A2) and the Dominance Models (A3, A4), but not to the Modified Dominance Models (A5, A6).

The increase of explained variance by using a constrained historical trend variable (FED*BYR = MED*BYR) in the Modified Dominance Model and the Joined Model suggests that the influence of the mother's and the father's education have developed in a similar fashion throughout time. Also for the following models we will see that if this restriction is used, it will always improve the model fit.

When using only the influence of the same-sex parent as in the Sex-Role Model (A8) the model performs worse than the conventional model that considers only the influence of the father (A1). Obviously, there is little evidence of a same-sex orientation of children, regarding their educational attainment. The Sex-Role Model including the different-sex parent (A9) performs even worse than the Sex-Role Model including the same-sex parent (A8). However, the Sex-Role Model performs better than the Conventional Model if we consider the influence of both the same- *and* the different-sex parents, as in model (A10). In comparison with model (A10), the fourth Sex-Role Model (A11) shows an even better fit. In model (A11) the historical trend of parental influence is constrained to be equal between the two parents. As mentioned before, this operationalization invariably improves the model fit significantly.

Table 2.3 Model Comparison on the Effects of Social Origin Throughout Time on Children's Educational Attainment (Fit Statistics)

	MODELS			DF		Sum of Squares			Adjusted R^2		
No.	Parents' Education (P.E.) (A)	Parents' Occupation (P.O.) (B)	P.E. & P.O. (C)	(A) (B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)
	Baseline										
(0)	BYR*FEM*CNR			11	11	18849	9730	9730	0.1564	0.1508	0.1518
	Conventional Model										
(1)	(0) +FED*BYR	(0) +FIS*BYR	(A1)+(B1)	13	15	37306	15587	18502	0.3103	0.2438	0.2896
(2)	(0) +MED*BYR	(0) +MIS*BYR	(A2)+(B2)	13	15	34647	14580	17450	0.2881	0.2280	0.2730
	Dominance Model										
(3)	(0) +HS_ED*BYR	(0) +HS_IS*BYR	(A3)+(B3)	13	15	39902	16500	19706	0.3320	0.2582	0.3085
(4)	(0) +LS_ED*BYR	(0) +LS_IS*BYR	(A4)+(B4)	13	15	34584	15860	18172	0.2876	0.2481	0.2843
	Modified Dominance Model										
(5)	(3) +LS_ED*BYR	(3) +LS_IS*BYR	(A5)+(B5)	15	19	40760	17367	20256	0.3391	0.2717	0.3168
(6)	(5) +HS_ED*BYR=LS_ED*BYR	(5) +HS_IS*BYR=LS_IS*BYR	(A6)+(B6)	14	17	**40760**	17364	**20255**	**0.3391**	0.2717	**0.3170**
	Joined Model										
(7)	(0) +FED*BYR=MED*BYR	(0) +FIS*BYR=MIS*BYR	(A7)+(B7)	13	15	40152	17359	20071	0.3341	0.2717	0.3143
	Sex-Role Model										
(8)	(0) +SS_ED*BYR	(0) +SS_IS*BYR	(A8)+(B8)	13	15	36434	15207	18149	0.3031	0.2338	0.2840
(9)	(0) +DS_ED*BYR	(0) +DS_IS*BYR	(A9)+(B9)	13	15	35410	14951	17777	0.2945	0.2338	0.2780
(10)	(8) +DS_ED*BYR	(8) +DS_IS*BYR	(A10)+(B10)	15	19	40170	17363	20081	0.3342	0.2716	0.3141
(11)	(10)+SS_ED*BYR=DS_ED*BYR	(10)+SS_IS*BYR=DS_IS*BYR	(A11)+(B11)	14	17	40174	17363	20080	0.3342	0.2717	0.3142
	Individual Model										
(12)	(0) +FED*BYR+MED*BYR	(0) +FIS*BYR+MIS*BYR	(A12)+(B12)	15	19	40176	17389	20119	0.3342	0.2720	0.3146
(13)	(12)+FED*BYR=MED*BYR	(12)+FIS*BYR=MIS*BYR	(A13)+(B13)	14	17	40174	**17387**	20094	0.3342	**0.2721**	0.3145
	MS_{err}					6.07	6.07	5.77			
	N					13148	7559	7559			

Source: NSFH 1988; GLHS 1983, 1989; FAM 1993; HIN 1995.

Finally, we also looked into the Individual Model, that is often used in research on status attainment (e.g. Treiman & Terell 1975, Van der Lippe et al. 1995). Model (A12) measures the influence of the mother's and the father's education and both of their historical trends separately. Compared to the Conventional Model (A1), the Individual Model (A12) has a significantly better fit, showing that the influence of mother's education is important for explaining the educational attainment of children. Again, however, it is even better to constrain the historical trends of parents' influence to be equal to each other, as done in the second Individual Model (A13).

Still, the best model we observed was the Modified Dominance Model. The higher status parent explains more of the variance of children's education than the father's background only. We can see this by comparing the outcome of the Conventional Model that uses the father's status (A1) with the Dominance Model, that uses the dominant parent's status (A3). However, in contrast to what Erikson believed, the lower status parent still has a significant influence on children's education.

We observe this by comparing the Modified Dominance Models (A5) and (A6) with the Dominance Model (A3). Perhaps the additional influence of the non-dominant parent indicates how vital in most families the additional resources, which a second parent contributes, are. This categorization is also better than the one chosen for the Individual Model.

The set of models (B) analyses how the parents' occupational level influences the educational level of their child. The degrees of freedom are the same as in the set of models (A). On average, the statistical relationship between parents' and children's education is higher than the relationship between parents' occupational status and children's education. The overall explained variance of children's education by parents' occupational status now is smaller than in the previous analysis, in the set of models (A). In the set of models (B), because parents' education is excluded, this part of the influence of social origin now unfolds via the parental occupational level.

Consequently, what happens here is that we overestimate the influence of parental occupational status and underestimate how much of the variance is explained by the parents' educational background. Nevertheless, the impact of parental occupational status possibly has a mechanism or pattern different from what is found for the impact of parental education. To test this, we now study the influence of the parents' occupational status on children's education.

All models that consider only one of the parent's occupational background (B1 to B4, B8, B9) show a weaker performance than any of the other models. The Modified Dominance Model (B5, B6), Sex-Role Models with both parents' occupational status (B10 and B11) and the Joined Model (B7) fit the data rather well. They are outperformed by the two Individual Models (B12, B13). The best Individual Model, is the one that lays an equality constraint on

the historical trend of parents' occupational influence (B13). Regarding the degrees of freedom used in the models, note that the differences of the fit statistics between the Modified Dominance Model (B6) the Joined Model (B7), and the Individual Model (B13) are very small.[9]

It becomes clear that the influence of parental education differs from the influence of their occupational level on their children's education. Both, parents' education and occupation are significant for the explanation of children's educational attainment. The influence of parental *education* can best be studied with the Modified Dominance Model, that is, sorting them by a dominant *versus* non-dominant category (A6). The *occupational* influence of parents can best be studied by entering the father's and the mother's occupation into the equation, as done in the Individual Model (B13).

The influence of either parent develops in a similar fashion over time. It always improves the model fit significantly if we constrain the historical trends so that the influence of the father's and mother's status are equal. This has been the case for all the model variations in the sets of model (A) and (B).

Excluding the influence of parents' occupational level on children's education has the disadvantage of underestimating the total scope of intergenerational status transfer. Therefore, in model (C) we study the impact of parents' educational and occupational level together. Initially, this means that the results of model (C) are restricted to the population of respondents whose parents both have valid entries for their occupational codes (N=7559).

The outcomes of models (C) are comparable to the results of models (A) but not models (B). As could be expected, the explained variance in the models increases when the education of the parents (models A) is added to the set of models (B). The Conventional Models (C1, C2) again perform unsatisfactorily. Throughout the set of models (A) to models (C) we have seen that the Conventional Model exhibits the poorest performance. Only for the model where merely the different-sex parent's status background enters the model does the model fit appear worse (A9, B9, C9). The Conventional Model does not recommend itself to be used, but neither does the sex-role model. The Dominance Model that uses only the higher status parent (C3) is outperformed by a variety of other models, such as the Modified Dominance Model, the Joined and the Individual Model. Based upon this, the data supports neither the *Conventional*, nor the *Dominance*, nor the *Sex-Role Hypothesis*.

Altogether, taking into account both parents' SES improves the fit measures in all

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9 Considering the disadvantage that many times the mother's occupational status has a missing value (especially for the older cohorts) and models (B6 and B13) require a valid entry for it, model (B7) often may be the more practical solution. In an analysis not shown here, I substituted a missing value of either parent with the other parent's valid entry and observed that the joined classification continued to fit the data better than either the conventional or Erikson's dominance approach (but not the modified dominance approach).

models (C) significantly. The joined classification (C7) offers a good, parsimonious solution. It fits better than any of the other models, apart from the Modified Dominance Model (C5 and C6). Clearly, the Modified Dominance Model (C6) that includes a joined measurement of parents' historical effects, has the best fit. Overall, the historical trends of the influence of parental educational and occupational status are displayed best when they are constrained to be equal for the father and the mother, so to speak as their 'joined trend'.

The Individual Model (C12, C13) beats the Conventional, Dominance and Sex-Role Models, but is outperformed by the Joined (C7) and the Modified Dominance Model (C6). If only the influence of the parents' occupational status on children's educational level is considered, then the Individual Model displays the best model fit. Thus the claims of the *Individual Hypothesis*, that the influence of the mother's and the father's occupational statuses count separately, cannot entirely be dismissed.

2.4.2 The Size of Parental Status Transfer

The relationships become clearer if we look at the strength and the size of coefficients for the models. In Table 2.4 a subset of the models (C) are selected and their coefficients shown. The selection of models is based upon a choice of the best model from the six model variations. For model (C2) we have made an exception, as it explicitly focuses on the influence of the mother. Furthermore, we also show the results of the Individual Model (C12) because it offers a textbook example on how collinearity can distort results.

The selected models are, first of all, the two Conventional Models, which include only the father's background (C1), or the mother's background (C2) and the Modified Dominance Model (C6). Furthermore, we show the coefficients for the Joined Model (C7). Also the coefficients of the Sex-Role Model (C11) and the two Individual Models (C12, C13) are displayed. The question is, how does the size and the historical pattern of the parental influence depend on the way their influence is modelled, i.e. by the father's, mother's, by the dominant/non-dominant parent's, by their joined, by the same-sex/different-sex or by their individual influence?

The size of the coefficients of model (C1) and (C2), the two conventional models, suggests that the father's and the mother's occupational level are both important for the explanation of the child's educational level. Yet, the importance of social origin, be it the father's or the mother's SES, is becoming less and less determining for the educational attainment of children. Both parents' influences decrease rapidly throughout the decennia.

The most prominent pattern discovered is that the influence of the parental education has a dominance pattern. Model (C6) allows for this power structure of parental influence. The influence of the higher educated parent is more pronounced than the influence of the lower educated parent. We find no dominance pattern for parental occupations. The influence of the lower status parent is slightly higher than the influence of the higher status parent.

Table 2.4 Estimated Parameters for Selected Models of Table 2.3 (Models C), T-Values in Parentheses

	(1)	(2)	(6)	(7)	(11)	(12)	(13)
B_0	9.96	10.42	7.46	7.55	7.55	7.46	7.54
FED	0.510			0.189		0.144	0.189
	(8.2)			(11.5)		(4.6)	(9.8)
MED		0.356		0.189		0.240	0.190
		(11.8)		(11.5)		(7.0)	(9.5)
FED*BYR	-0.093			-0.072		-0.005	-0.072
	(2.5)			(3.1)		(0.1)	(3.1)
MED*BYR		-0.140		-0.072		-0.148	-0.072
		(1.6)		(3.1)		(3.1)	(3.1)
FIS	0.287			0.300		0.400	0.332
	(10.6)			(7.9)		(6.2)	(8.0)
MIS		0.391		0.300		0.202	0.267
		(6.2)		(7.9)		(3.1)	(6.4)
FIS*BYR	-0.287			-0.126		-0.224	-0.126
	(3.3)			(2.4)		(2.6)	(2.4)
MIS*BYR		-0.143		-0.126		-0.032	-0.126
		(3.3)		(2.4)		(0.4)	(2.4)
HS_ED			0.259				
			(12.6)				
LS_ED			0.116				
			(5.5)				
HS_ED*BYR			-0.068				
			(2.9)				
LS_ED*BYR			-0.068				
			(2.9)				
HS_IS			0.281				
			(6.3)				
LS_IS			0.314				
			(6.6)				
HS_IS*BYR			-0.132				
			(2.5)				
LS_IS*BYR			-0.132				
			(2.5)				
SS_ED					0.196		
					(10.0)		
DS_ED					0.183		
					(9.5)		
SS_ED*BYR					-0.071		
					(3.1)		
DS_ED*BYR					-0.071		
					(3.1)		
SS_IS					0.314		
					(7.5)		
DS_IS					0.286		
					(6.8)		
SS_IS*BYR					-0.126		
					(2.4)		
DS_IS*BYR					-0.126		
					(2.4)		
Adj. R^2	0.310	0.288	0.339	0.334	0.334	0.334	0.334
DF	15	15	17	15	17	19	17

Note: Effects from the baseline model (B_0) are omitted. Intercept refers to women in the USA born in 1923.

Source: NSFH 1988; GLHS 1983, 1989; FAM 1993; HIN 1995.

Model (C7) jointly estimates the entire influence of social origin and its historical trends. The model does not allow for comparisons between parents, but for studies that aim to capture total parental influence this model is sufficiently elaborated.

In the sixth column the size and strength of the coefficients of the sex-role model (C11) are shown. The influence of the same-sex parent is only slightly higher. Therefore, the coefficients for the sex-role model (C11) do not suggest that sex-role imitation is the main pattern for parental status transfer onto children's education.

When modelling, as done in model (C12), both parents' background and historical status transfer trends individually, collinearity influences the stability and size of the coefficients. This means that the coefficients for the model become unstable, and the individual parent's main effect and trend pattern is distorted. Thus, due to collinearity, the individual model makes it harder to identify any of the trends in status transfer. The historical trend of parental status transfer is best modelled by constraining the father's and the mother's trend to be equal, as done in model (C6), (C7) , (C11) and (C13). By that, part of the collinearity existing between both parents' status background vanishes.

Remember that for the measurement of the influence of parents' occupational status in the set of model (B), the Individual Model (B13) had been the preferred solution. In this table, which includes the size of the influence of parents' education *and* occupation (set of models C), we see why this is the case. Obviously the influence of the mother's and the father's occupation differs significantly, but not in a way as captured by the Modified Dominance Model.

By now our firm conclusion is that for both parents the influence of their SES background on the education of their child diminishes throughout the years with a similar pattern. In the next section we will include homemaking mothers again into our database and look at the results for the entire population in the database.

2.4.3 A Comparison of Models Including Homemaking Mothers

By selecting only mothers with a valid occupational code, in models (C) roughly 43 percent of the respondents are excluded from the analysis. In model (D), shown in Table 2.5, we also consider the influence of homemakers. Remember that the variable for the influence of the homemaking mothers was coded as a dummy variable, while simultaneously carrying out a mean substitution for their value on the variable for the mother's occupational status. The baseline model of Table 2.5 includes the same variables as in Table 2.3, plus an interaction between homemakers and country. For this last step we display only the results of the previously best fitting models. This means that we show the outcomes of the Modified Dominance Model (D6), the Joined Model (D7) and the Individual Models (D12, D13).

Besides showing the fit statistics for the model comparisons, Table 2.5 shows the results for an additional model. The new model accounts for the fact that homemaking

mothers have only educational resources to transfer to their children. Model (D13a) introduces an additional interaction effect (HOM*MED), that allows the education of a homemaking mother to weigh stronger than the education of a mother who had a paid job.

The results in Table 2.5 show that the model with the interaction for homemaking mothers (D13a) fits the data better than any other. Thus, the educational background of the mother becomes more important for her child's educational attainment, if she is a homemaker, compared to the effect of the education of an employed mother. If we add this interaction to any of the other models (A, B or C), it also improves their model fit. Nevertheless, our following model comparison is restricted to the models without this interaction.

The results of the remaining models are similar to those in Table 2.3, except that now they have become more crystallized. The Modified Dominance Model (D6) fits the data significantly better than any of the remaining models. A good second best, as has also been the case before is the Joined Model (D7). Only fourth best is the Individual Model (D12), because it had a similar sum of squares to the Individual Model with constrained historical trends (D13), but used two more degrees of freedom.

Table 2.5 Selected Model Comparison on the Effects of Social Origin Throughout Time on Children's Educational Attainment (Fit Statistics, Homemakers Included)

No.	Models (D)	DF	Sum of Squares	Adjusted R^2
	Baseline			
(0)	BYR*FEM*CNR+HOM*CNR	14	19312	0.1601
	Modified Dominance Model			
(6)	(7) +HS_ED*BYR=LS_ED*BYR+HS_IS*BYR=LS_IS*BYR	20	**42549**	**0.3537**
	Joined Model			
(7)	(0) +FED*BYR=MED*BYR+FIS*BYR=MIS*BYR	18	42169	0.3507
	Individual Model			
(12)	(0) +FED*BYR+MED*BYR+FIS*BYR+MIS*BYR	22	42365	0.3521
(13)	(12) +FED*BYR=MED*BYR+FIS*BYR=MIS*BYR	20	42346	0.3521
(13a)	(13) +HOM*MED	21	**42625**	**0.3543**
Ms_{err}		5.92		
N		13148		

Source: NSFH 1988; GLHS 1983, 1989; FAM 1993; HIN 1995.

2.3.4 The Size of Parental Status Transfer When Considering Homemaking Mothers

In Table 2.6 we show the size of the coefficients of the above selected models from Table 2.5. As homemaking mothers are included, the number of cases in this analysis is again 13148, as in the set of models (A). In the set of models (D) we found that model (D13a), where we additionally allowed the educational background of a homemaker to count more strongly, explained the educational level of the child best. The amount of influence a homemaker's education has, compared to an employed mother, is indicated by the size of the coefficient, labelled HOM*MED (0.114).

Regarding the results for model (D6), the main influence of the dominant versus the non-dominant parent's educational level is more dissimilar than the main effects of the dominant versus non-dominant parent's occupational level. Obviously, the dominant parent's education counts more for the explanation of the child's education than the non-dominant parent's education. This is not the case for the influence of the parents' occupational level. The difference in influence between the dominant parent's occupation and the non-dominant parent's occupation is small.

Remember that the historical trends of the influence of both parents are constrained to be equal in model (D6), (D7), (D13), and (D13a). For the model (D12) the interpretation of the historical trends is unreliable because of collinearity. In model (D12) the influence of the father's and the mother's education decreases by -0.037 and -0.104 points, respectively. Their occupational influence decreases by -0.215 and -0.049 points, respectively. In the former case, the influence of the father decreases less quickly than the influence of the mother; for the latter we see the reverse, the influence of the father decreases more quickly than the influence of the mother. However, these numbers are incorrect and misleading, because we have seen that the historical trend, whereby the influence of social origin for children's status attainment vanishes, is the same for the mother and the father.

In model (D13), the Individual Model with a joined measure for trends of parental influence, we observe that the influence of the parents' education over time has decreased by approximately 0.140 points (FED*BYR + MED*BYR), whereas the influence of the parents' occupational status has decreased by 0.342 points (FIS*BYR + MIS*BYR), for both parents in an essentially similar manner. The interpretation of the trends of parental influence thus are less reliably in their interpretation in model (D12) compared with model (D13).

Table 2.6 *Estimated Parameters for Selected Models in Table 2.5 (Models D), T-Values in Parentheses (N=13148, Homemakers Included)*

	(6)	(7)	(12)	(13)	(13a)
B_0	7.46	6.35	6.72	6.63	7.22
FED		0.223	0.199	0.219	0.204
		(21.8)	(9.6)	(17.3)	(15.9)
MED		0.223	0.246	0.225	0.158
		(21.8)	(10.7)	(16.7)	(9.6)
FED*BYR		-0.070	-0.037	-0.070	-0.054
		(4.5)	(1.2)	(4.5)	(3.5)
MED*BYR		-0.070	-0.104	-0.070	-0.054
		(4.5)	(3.0)	(4.5)	(3.5)
FIS		0.317	0.405	0.364	0.366
		(10.4)	(9.9)	(11.5)	(11.5)
MIS		0.317	0.145	0.211	0.275
		(10.4)	(2.4)	(5.8)	(7.4)
FIS*BYR		-0.171	-0.215	-0.150	-0.159 (3.6)
		(3.9)	(3.6)	(3.4)	
MIS*BYR		-0.171	-0.049	-0.150	-0.159
		(3.9)	(0.6)	(3.4)	(3.7)
HOM*MED[a)]					0.114
					(6.9)
HS_ED	0.300				
	(21.5)				
LS_ED	0.114				
	(10.1)				
HS_ED*BYR	-0.068				
	(4.3)				
LS_ED*BYR	-0.068				
	(4.3)				
HS_IS	0.295				
	(8.3)				
LS_IS	0.314				
	(8.0)				
HS_IS*BYR	-0.168				
	(3.9)				
LS_IS*BYR	-0.168				
	(3.9)				
Adj. R^2	0.355	0.352	0.353	0.353	0.355
DF	20	18	22	20	21

Source: NSFH 1988; GLHS 1983, 1989; FAM 1993; HIN 1995.

Note: Effects from the baseline model (B_0) are omitted from the table. Intercept refers to women in the USA born in 1923.

[a)] The main effects of homemaking mothers on the educational attainment of their children are significantly negative in all three countries.

2.5 Conclusions and Discussion

Six separate hypotheses on how to model parental status background in educational attainment have been investigated in this chapter. The questions posed at the beginning can now be answered as follows. The best model to show how parents's socioeconomic status has influenced children's educational attainment throughout history is the Modified Dominance Model.

The status dominant parent, whether it is the mother or the father, is more influential than the non-dominant parent for the explanation of children's educational level, but the non-dominant parent still counts. This pattern has remained the same over several decennia. Furthermore we have seen not only for the Modified Dominance Model, but also for the other models, that the historical trend of parental status transfer onto children's education is best modelled if the effects of the father and the mother are set equal to each other. The latter result indicates that the historical trend of educational reproduction has been the same for the father and the mother. The general conclusion of studies in social inequality, about an overall trend towards less educational reproduction, is thus not altered by the inclusion of the mother's influence in a model on status attainment.

If we look in a more detailed way at the results, we see that some empirical models perform rather unsatisfactorily. For instance, the results for the Conventional Model indicate that neither only the father's background nor only the mother's background suffices to model the total transfer of parental status from one generation to the next. Therefore the *Conventional Hypothesis* can be rejected. Although the dominance approach, as Erikson (1984) proposes it, is an improvement compared to the Conventional Model, it does not fit the data satisfactorily. The significantly inferior performance of the Conventional and the Dominance Models compared to the other models leads us to conclude that accounting for both parents' SES background in a study on status attainment is always superior compared to using only one of the parent's (usually the father's) status traits. The total influence of parents is underestimated if we use only one of the parents' SES background. Among the models that include both parents' SES, the Sex- Role Model, holding that the influence of the same-sex parent is higher than the influence of the different-sex parent, offers the most inaccurate solution. Little support is found to underline the expectation of a sex-role model regarding the educational attainment of children. Therefore, this model's hypothesis is not applicable to explain children's educational attainment.

Some other models perform more satisfactorily. The Modified Dominance Model that classifies the SES of both parents hierarchically, into a higher and lower status parent, fits the data best. Therefore, the initial assumption that the dominant parent determines the educational level of the child is in the right direction, but the rigidity of its implementation is incorrect. The results have produced conclusive evidence for the argument that, within the family, the resources of the lower status parent are also important for the educational attainment of children.

In the introduction of this chapter, it was suggested that the mother's influence possibly has expanded in recent years, compared to that of the father. The tentative expectation was proposed that inclusions of mothers' status backgrounds perhaps lead to a correction of the previously established general trend towards less educational reproduction. No evidence is produced for this

case. On the contrary, the historical trend of parental influence on the child's education is the same for the mother as it is for the father. A 'joined' trend measure for the father's and the mother's influence captures this development best. The Joined Model holds that mother's and father's status operate in an identical way. It is a good 'second best' solution to the leading Modified Dominance Model. If the status of the mother and the father differ, it seems to be the case that children are not unequivocally pulled towards the higher status parent's platform, but range somewhere between them. Otherwise Erikson's (1984) Dominance Model would have been the preferred solution, compared to the Joint Model.

The results for the Individual Model emphasize once again that both the mother's and the father's SES traits, are important for the explanation of the child's educational attainment. Yet, the disadvantage of including the influence *and* trends of both parents' educational and occupational background individually is that it becomes difficult to identify the underlying mechanisms due to the collinearity of the coefficients. Consequently, the hypothesis of the individual model is, in the light of these outcomes, not supported. The mother's and the father's status background both count for the educational attainment of children, but we are unable to establish their influence in the Individual Model correctly.

A recommendation of which model to use might be expected at this point. If we work by backward induction, then several models surely cannot be recommended as they underestimate the relationship between social origin and the educational attainment of the children. As stated before, using both parents' socioeconomic background to study patterns of intergenerational status transfer is always superior. Among the models using both parents' status background, the Individual, or the Joined or the Modified Dominance Model all showed a sufficient measure of social origin.

Nevertheless, these three models have their advantages and disadvantages concerning their use. For instance, by using the individual model we are able to show the relative influence of the mother, compared to the father. *However,* if we also include the father and the mother's historical trends into the analysis, collinearity will distort our results. The joined model avoids collinearity, is easy to employ, and missing data for either the father or the mother pose less of a problem-which at times may be a large advantage. Therefore, it recommends itself for trend analysis. *However,* it shows only total parental influence; the individual contributions of the father and the mother cannot be compared. The same is true for the Modified Dominance Approach. This approach proved to be the best model for the impact of social origin on the education of the children. *However,* although being the best model it also requires that an occupational title be assigned to the respondent's mother. Considering the development of maternal employment, the *Modified Dominance Model* is best applied to more recent data. Older sets of data will probably include more homemaking mothers, making the implementation of this model more problematic. Consequently, a definite answer is dependent on the sort of question asked and the historical time covered by the data.

The mother's educational and occupational status have, net of father's SES influence, considerable effects on men and women's educational attainment. Concerning trends of parental

status transfer on the child's educational attainment it cannot be maintained that by adding the mother's influence, the directions of this trend changes. Still, the omission of either parent's characteristic as predictor produces a small but significant bias towards the estimated trends in status reproduction.

Therefore, it would be interesting to expand the survey window into the 1980's and extend the analysis to the child's first job. Furthermore, including more than three countries would offer insights into the question whether a general pattern has been discovered or whether in other countries other mechanisms apply. For future research it may be interesting to see whether the extent of status transfer among status homogeneous couples is higher than among couples that are not status homogeneous.

Chapter 3 Time or Resources: Mother's Employment and the Performance of Children at School[10]

Abstract

This chapter contains a study on how the educational performance of children is related to the participation of mothers in the labour market. We compare two arguments. The time budget argument asserts that participation of a mother in the labour market has a negative effect on her child's school career because her working hours restrict her presence at home. The resource argument maintains that maternal employment is beneficial for her child's educational attainment because of the positive relation between the mother's socioeconomic job resources and children's education. Data from two surveys, the 'Households in the Netherlands 1995' and the 'Netherlands Family Survey 1992-1993' are examined. The entire database contains 804 first born children of 13 years and older. The results show that only if the mother remains or reenters at a low occupational status level when her child is about to make a transition into secondary education, then her employment has a negative impact on her child's education. Her time budget does not affect her child's educational attainment.

3.1 Introduction

Although in the Netherlands most mothers stayed at home full-time to look after their children in the past, these days working mothers are no longer exceptional in Dutch society. Labour market participation is growing, in particular among mothers with young children. By the end of the 1970's, of the women who gave birth for the first time only 9% continued their employment. By the end of the 1980's this proportion had risen to 29% (CBS 1992). In 1997, 55% of the women with a child

[10] This chapter has been presented at the *Sociologen Marktdagen* (Utrecht 1997) and recently been submitted to the *Netherlands Journal of Sociology*, together with Tanja van der Lippe.

between zero and four years of age were gainfully employed (SCP 1998).

One peculiarity of the Dutch labour market is that, compared to other Western European countries, we find here the highest rate of women working in part-time positions (Blossfeld & Hakim 1997, p. 5). In 1995, 67% of the women working in the Netherlands have a part-time job compared to, for example, 25% in the USA and 41% in Sweden (Eurostat 1997, Blossfeld & Hakim 1997). Many women in the Dutch labour market have a job of 12 to 23 hours (31%) or of 24 to 34 hours (22%). Most of the men on the other hand (90%) work in occupations of 35 to 44 hours (Hooghiemstra 1997). More women than men, however, want to increase their number of working hours, whereas more men than women want to decrease their working hours. Of all the Dutch employed women, only 18% prefer to work less whereas 28% prefer longer working hours. For men, 30% prefer to work fewer hours and only 9% would prefer to work longer (ibid., p.75).

Accordingly, the percentage of women who work fewer hours than their husband is large (61% in 1994), although in 1986 it was even larger (68%). The percentage of husbands working fewer hours than the wife has been increasing during that time from 4% to 8% (ibid., p. 58). Still, part-time employment remains a preferred strategy of Dutch wives and mothers (and very slowly, increasingly of husbands and fathers) to combine their family responsibilities with their labour market career.

In section 1.3 of Chapter 1 it is described how dynamically the labour market participation of Dutch women has developed. Women between 25 and 55 years are the most prone to have children at home or family responsibilities. Over the last two decades we observe the highest increase regarding the employment rate of these groups of women. The most recent development is a shift from the 20- to 24-year-old women to 25- to 30-year-old women, as the group with the highest female employment rate.

The most important reason for this shift is that many women invest in a prolonged formal education, postponing their labour market entry, and marriage and childbirth as well. With more women prolonging their formal education, we can expect the employment rate of mothers to further increase in the future. The reason is that women's educational levels are positively related to their likelihood of remaining in paid employment (CBS 1994).

This chapter deals with the influence of the mother's employment on children's education. Children's educational success is a vital topic in studies on social stratification research. Usually, the indicators of family background to predict the educational success of a child are the education and occupation of the father (e.g. Blau & Duncan 1967, Hauser & Featherman 1976, Blossfeld & Shavit 1993, Rijken 1999). Researchers have paid less attention to the influence of the mother's compared with the father's socioeconomic background. It is argued that the socioeconomic status of the father determines the market position of the family and that the mother is usually dependent on the socioeconomic resources of her husband (Goldthorpe 1983, 1984). However, when we observe the above-mentioned growth in mothers' labour market participation, it also becomes

interesting to study the effect of women's status on the child's process of status attainment. Studies in North America show that the mother's socioeconomic background affects the educational location of her children (Treiman & Terrell 1975, Stevens & Boyd 1980, Heyns 1982).

One question that continues to occupy public and political debate is the effect of the growing labour market participation of mothers on the school performance of children. In the USA, during the 1980's a lively discussion arose about whether out-of-home employment improves a child's chances in life or affects these adversely (Kamerman & Hayes 1982, Milne et al. 1986, Heyns & Catsambis 1986, Nock & Kingston 1988, Desai et al. 1989, Hoffman 1989, Scarr et al. 1989). However, concern about the effects of maternal employment is not specific to the 1980's as the following passage shows:

> "A question arises in the minds of many women [...] as to the effects of out-of-home employment upon the conditions in the home and the child's attitudes toward these conditions. Sound mental health is likely to develop more successfully in the fertile soil of a happy well-ordered home life, free from any excess of irregularities, disturbances and flurry" (Mathews 1934).

Here we examine whether children gain more from full-time mothers than from working mothers in terms of educational performance. On the one hand, one can argue that due to additional resources children of working mothers achieve a higher educational performance (Kalmijn 1994, Dronkers 1995). On the other hand the lower educational attainment of some children with working mothers may be due to the restricted time mothers have at home (Milne et al. 1986, Desai et al. 1989).

Dronkers (1992) shows for the Netherlands that children from mothers with a working-class occupation have educational attainment levels below those of children whose mothers are housewives. All other job categories of mothers have positive effects on children's educational attainment. Yet, Dronkers (1992) does not introduce a separate control for the mother's time budget restrictions. We study not only the influence of the mother's job status but also whether or not she works full-time. It may be the case that the employed mother's transfer of status resources may be inhibited by her restricted time at home.

Dronkers and Doornik (1996) investigated what influences the child's school-related behaviour. They found that maternal working-class employment increases the chances of behavioural problems for the child inside and outside the school; children have fewer behavioural problems if their mothers are full-time housewives. Only upper-class maternal occupations significantly reduce the likelihood of the child having school-related behavioural problems.

A recent small scale study by Van der Slik and Felling (1999) underlines that the mother's working hours, when their child is ten years old, have a negative influence on sons' secondary school performance, but only if the mother uses several child minders. Daughters' educational attainments, according to this study, are not affected. However, they do not consider that there are more and less sensitive phases for the intellectual development of a child. In pedagogical research

the preschool age has been identified as a particularly sensitive phase for the intellectual development of a child (Groenendaal et al. 1996). In fact, the influence of the mother's time restrictions on children's educational attainment later in life is distorted by other factors. For instance, when the child enters the educational system, other factors, like the quality of the school, teachers, friends, neighbours, etc. enter the setting. Therefore, unlike Van der Slik and Felling (1999), we also focus on the effects of the mother's out-of-home employment in the preschool years of the child.

As we are interested in the effects of mothers' labour market participation, we formulate exclusively expectations regarding her influence. Because previous studies show that the father's socioeconomic background has an influence on his child's education, we include his traits in our study as control variables. In this way we prevent an overemphasis of the mother's influence. The question answered is the following: *How heavily do the time restrictions caused by the mother's employment and her occupational resources influence children's educational attainment?*

3.2 Theory and Hypotheses

3.2.1 Time Budget

One issue regarding maternal employment is whether a mother ought to quit her job after childbirth and not re-enter the labour market until the child is less dependent on her. The theoretical argument underlining the possible negative consequences is that if the mother is in paid employment, the competing demands for her scarce time resources imply that she devotes little time to the child (England & Farkas 1986, Desai et al. 1989). Because of the reduced time available, where working mothers are concerned, the family environment is probably of a lower quality since the child is given assumably less stimulation and support (England & Farkas 1986). We call this reasoning the *time budget argument.*

Additionally, certain aspects of the developmental theory also suggest that the current increase in the numbers of working mothers with small children may have negative implications. Developmental theory holds that it is within the first few years after birth that an infant learns to trust its parents. What is more important, the infant also learns to rely on himself or herself — an important personal trait for the process of learning further in life (Groenendaal et al. 1996, p.182). When the child is older and more independent and he or she has been looked after, for instance, by persons other than the mother, he or she can relate to such persons without any negative effects on his or her intellectual development.

Some researchers have emphasised, based on empirical evidence, that maternal employment has negative effects on the child's intellectual abilities and school career. Gold and Andres (1978a, 1978b) found support for their hypothesis that maternal employment is negatively related to boys' cognitive performances at nursery school age and to language ability scores of 10-year-old boys, compared to girls in the same group. As an explanation for this finding they state that

"[...] the greater role similarity between the mothers and fathers when the mothers are employed should broaden the daughters' conception of their own identity but should cause problems for sons in establishing a separate masculine identity" (1978b, p.75). Only with respect to adolescent children were no differences discovered in academic performance, neither within the population of children of employed nor non-employed mothers, nor between boys and girls (Gold & Andres 1978c). Desai et al. (1989) also discovered negative effects of maternal employment on the performance of 4-year-old boys (but not girls) in a language ability test. However, this effect was significant only if mothers in higher income families were gainfully employed during the early years of the child.

The *time budget argument* also entails that not only having a paid job in the first few years after childbirth, but also the number of hours worked should influence the child's school success. Milne et al. (1986) empirically support this idea with their results. They show that net of mothers' homework monitoring, family income and the like, the working hours of the mother negatively affect the educational performance of primary and secondary school students. Thus, the number of maternal working hours and the child's educational level may be linked in a negative sense. If the assumption holds that in the sensitive phase during childhood the mother should stay at home, the effects derived from the *time budget argument* are most likely to appear in the first few years after the child is born and before it enters elementary school. Based on this, we formulate the following two time budget hypotheses:

(a) If a mother does not quit her job during the preschool years of her child, she will have an educationally less successful child than a mother who has resigned her job during that time.

(b) The more time the mother spends working in the first few years after childbirth the lower the child's educational attainment.

3.2.2 Resources

In contrast to the above argument the following section argues that children of working mothers may have additional resources at their disposal compared with children of non-working mothers. For instance, a mother's high status occupation normally implies that she has to keep up to date with the latest developments in her profession. The image of a frequently studying parent is, of course, a very good role model for a child's academic progress.

A mother's employment also enhances a degree of independence in the child, and familiarizes it with home organisation schedules and ideas originating from persons other than their parents. These traits impress teachers and help children get on at school (e.g. Gold & Andres 1978a, 1978b). In addition to the job status itself the job's income is implicitly included in the term 'occupational resources'. However, income is of course highly related to the occupational status of the incumbent. Regarding maternal employment we believe that her occupational status, labour market experience and career ambitions stimulate and support the child in its school career (Heyns

& Catsambis 1986, Dronkers 1992, 1995, Kalmijn 1994).

When children are born into a family, very often the mother continues to have the prime responsibility for their upbringing. The additional resources from her employment enable her to invest more into her children's educational attainment than if she was a homemaker. Perhaps her occupational status transfer to children's education outweighs the implied negative effects of the employed mother's time constraints, as posed in the *time budget argument*. We call this second rationale the *resource argument*. It leads to the expectation that a mother's labour market participation has a positive effect on the educational attainment of her child.

We also find empirical evidence underlining the positive influence of the mother's occupational status on the educational results of the child. The higher the occupational status of the mother, the better the children score on a test measuring their academic achievement (Dronkers 1992). It may be the case that mothers with a higher socioeconomic status begin to stimulate their child's intellectual development from an early age and may be more eager to educate their child at home. Here two issues are raised that are related to the mother's occupational resources: (a) her occupational status when the child is about to make its transition into secondary school and (b) her career patterns.

When the child is approximately thirteen years old, within the Dutch educational system parents have to take an important decision about the child's further schooling. Children's schooling is channelled into either a vocational or an academic education. Educational decisions are seldom reversed. For the USA, Kalmijn (1994) showed that maternal occupational status later in life has an impact on the child's chances to make a transition into higher secondary education.

Regarding the second issue - the mother's career pattern - usually the likelihood of a woman gaining promotion is reduced if she works intermittently, which implies that also her career pattern may be related to the child's educational success. Because an employer assumes that a woman with an interrupted employment history is less reliable, it is unlikely that important tasks will be assigned to her. Thus, her career pattern is also important. Heyns & Catsambis (1986) find that a mother's interrupted or intermittent employment history has harmful effects on the child's schooling in contrast to the situation for non-working or continuously working mothers.

It may be the case that women who interrupt their career reduce the specific human capital needed to obtain high-status occupations and thus diminish the resources they can transfer to their child. We derive the following two resource hypotheses:

(a) The higher the occupational status of a mother (before the child enters its secondary education), the higher the educational attainment of her child.

(b) The more intermittent the labour market participation of a mother, the lower her child's educational attainment.

3.3 Data and Methods

3.3.1 Data and Variables

The present analysis uses data from two surveys: the 'Households in the Netherlands 1995' (HIN95) (Weesie et al. 1995) and the 'Netherlands Family Survey 1992-1993' (FE92-93) (Ultee & Ganzeboom 1993). Both surveys contain a representative stratified random national sample, where couples are oversampled.[11] In both surveys the two partners answer questions on their educational, vocational, and employment history.

We exclude single parents since these groups are special cases where the influence of working mothers was found to follow a different mechanism (Milne et al. 1986). The HIN95 includes information only on the first child's education. Therefore, the firstborn child's educational level is used in both surveys to enhance the comparability of the results from the two sets of data. To ensure that the child completed or could have completed primary school, only families having a child of at least 13 years of age are selected. After the selection, 804 valid cases remained.

We examine how the eldest child's educational success depends on the mother's time budget and socioeconomic background. As the age of the dependent child ranges between 13 and 47 years, several problems had to be solved. Obviously some teenagers would be continuing their education, after their parents had been interviewed. Furthermore, the educational level of a teenage child had to be comparable to that of a 20-, 30- or even a 40-year-old one. The solution was to rank the various educational levels by generation, as a percentage on a scale from 1 to 100 (Norusis 1990).[12] The result of this ranking procedure is presented in Table 3.1. The ranked education of the first child of the respondents is the dependent variable in the analysis (see for another example: Niehof 1997, p. 24ff.). Higher scores show a higher educational level for a child in comparison to his or her peer year group. For instance, a 13-year-old receives 20 points, whereas a 33-year-old receives two points for completing primary school. The more children in one of the educational categories, the higher their scores are. The further away the educational level of children from the mean of the peer year group, the greater their score differences are.

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11 Both married and unmarried couples living together were included in the sample.

12 Originally, educational level was split into eight degrees (values in parentheses): completed or currently still in elementary school (1), lower vocational school (2), lower secondary school (3), intermediate secondary and vocational school (4), higher secondary school (5), higher vocational school (6), a university degree (7), or a doctorate (8).

Table 3.1 *Cross-tabulation of the Average Children's Educational Ranking Score by Their Age and Present Formal Education*

	Children's Educational Ranking Score (Number of Cases in Parentheses)							
Age	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
13	20 (18)	44 (4)	63 (14)	86 (8)	98 (3)			
14	18 (8)	48 (7)	72 (5)	84 (1)	94 (4)			
15	8 (5)	28 (9)	49 (6)	65 (6)	88 (10)			
16		9 (5)	31 (9)	58 (8)	86 (10)			
17	3 (1)	13 (5)	33 (8)	63 (11)	89 (6)	100 (1)		
18	4 (2)	16 (6)	30 (4)	60 (17)	90 (4)	99 (2)		
19	3 (2)	14 (6)	25 (3)	49 (16)	78 (7)	93 (5)	100 (1)	
20	2 (1)	9 (3)	14 (1)	33 (12)	57 (5)	76 (8)	94 (5)	
21		5 (2)	14 (3)	38 (10)	63 (4)	79 (5)	95 (4)	
22		10 (8)		41 (19)	66 (3)	78 (8)	94 (6)	
23	2 (1)	14 (9)	30 (5)	50 (12)	67 (4)	83 (8)	95 (3)	100 (1)
24	3 (2)	10 (3)	16 (2)	40 (18)	65 (2)	76 (7)	93 (7)	
25		7 (5)	16 (2)	48 (16)	77 (3)	87 (8)	98 (5)	
26		7 (2)	16 (5)	40 (15)	64 (1)	80 (6)	96 (2)	100 (1)
27	1 (2)	9 (4)	22 (3)	50 (12)	74 (2)	85 (4)	97 (1)	
28		14 (7)	27 (2)	52 (13)	72 (1)	83 (3)	97 (6)	100 (2)
29		10 (4)	23 (3)	50 (11)		82 (6)	95 (4)	
30		10 (4)	23 (4)	49 (5)		81 (5)	96 (2)	100 (1)
31	2 (2)		28 (3)	51 (9)	70 (1)	82 (5)	96 (1)	100 (2)
32		16 (6)	31 (3)	57 (3)	78 (1)	87 (7)	97 (2)	
33	2 (1)	14 (10)		57 (7)	73 (1)	83 (3)	96 (4)	
34		14 (1)	30 (1)	54 (8)	72 (1)	83 (4)	97 (3)	100 (2)
35		15 (3)	32 (2)	56 (3)	72 (1)	84 (8)	97 (1)	
36	4 (2)	14 (3)	28 (3)	49 (6)	64 (2)	75 (2)	92 (3)	100 (1)
37		11 (3)	25 (6)	43 (1)	58 (1)	75 (4)	94 (1)	
38			41 (1)	61 (3)		84 (3)	96 (1)	
39		16 (1)		50 (3)				
40	4 (1)	14 (1)		53 (2)		83 (1)	96 (1)	
41		15 (3)		52 (1)	67 (1)	81 (1)		
42	2 (2)		35 (3)			85 (1)		
43			49 (1)	66 (1)	100 (1)			
45	2 (1)							
46				69 (1)				
47	4 (1)		41 (1)					

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995.

Legend: (1) elementary school, (2) lower vocational school, (3) lower secondary school, (4) middle secondary/ vocational school, (5) higher secondary school, (6) higher voc. school, (7) college, (8) doctorate.

Calculating the ranking scores on the level of all respondents of both surveys (N=3146) resolves the problem of the decreasing number of cases within older age groups. We then 'borrowed' these scores and applied them to the children's file, for persons 25 years and older. The focal set of independent variables include time budget, resource and control variables.

Mother's Time Budget:

- *A mother's working hours when her child is a preschooler* are averaged during the period when her child is between zero and four years old, that is before it enters primary school. Her average working hours are divided into two categories: part-time employment with up to three full days and part-time or full-time work with four and more days of employment. Mothers who do not work during the preschool years of their child serve as reference category.

Mother's Occupational Resources:

- *Maternal occupational status* is measured when the child is 13 and about to enter secondary education. Included are occupations coded by the occupational classification of the *Central Statistical Office* (CBS 1984). We recoded the CBS occupational classification using the *International Socioeconomic Index of Occupational Status (ISEI)* (Ganzeboom & Treiman 1996). The ISEI scale has the advantage that it considers income when measuring occupational status. To measure the 'added value' of the mother's continued employment we form three categories for the occupational status of the mother when her child was 13 years old. The category 'low occupational status' includes occupations between 10-30 points. A 'medium occupational status' ranges between 31-50 points and occupational scores above 50 points are grouped together as 'high occupational status'.
- *Number of intermissions in working career* measures the extent to which the mother's career after childbirth has been intermittent or permanent. For every period of leave longer than one year the score of this variable increases by one point. This variable measures interruptions until the child turns 18. Of course, if children in the data set are younger than 18 years it counts the number of interruptions of the maternal career only up to the child's age at the interview.

Control Variables:

- The effect of *the mother's occupational status before childbirth* is controlled by a continuous variable. Her ISEI score before childbirth is divided by ten. Effects of non-working mothers are singled out by mean substitution (Cohen & Cohen 1976, p.274ff.). Additionally, if they never were employed before childbirth mothers are coded 'one' on a dummy variable. Therefore, the main effect of homemakers displays itself on a dummy variable, while being included in the analysis. Principally any ISEI value or even a zero value could have been assigned to mothers who never worked before childbirth. Applying a mean

value is only one possible choice. The *father's occupational status before childbirth* is constructed in the same way as the mother's occupational status before childbirth.[13]

- *Mother's age* is measured at the time of the interview and controls changes that are related to the birth cohort of the mother.
- We control the effect of both parents' educational level. *Mother's and father's educational level* range between one and eight (see footnote 2). The same categories as the variable for the educational level of the child are included, but of course not ranked by their age.
- *Father's working hours when his child was 0-4 years old* serve as a control variable because we filter the effect of the mother's working hours net of his effect. A father's working hours enter as a continuous variable.

Except for the mother's occupational status before childbirth, for all other control variables we substitute any missing value by their estimated regression value, based on the education and the occupational title of the mother or the father. In a second instance, if the result of the former substitution still yields a missing value, we use a 'mean substitution of subgroups', again based on the educational and occupational title of the mother or the father. Because of the substitution of missing values, the database contains 804 respondents.

3.3.2 Descriptions

The descriptive statistics for all the variables in the model are given in Table 3.2. The ranked formal education is the dependent variable in the analysis. As it is based on the average achievement compared to the peerage group of the child, the average ranked education of the child bears little information because, by definition, it has to be around 50%. The reason for the ranking being slightly above 50%, that is 52%, is because we used for children 25 years and older the ranking scores of the entire database. More information can be obtained from the variables from which the ranked formal education of the child is constructed.

One expected outcome is that the child's average educational level of 4.04 surpasses that of both of the parents. The mother's educational level of 3.12 is lower than the father's educational level of 3.67. The children in the data are on average 24 years old with a standard deviation of seven and a half years. Mothers are on average 49 years old, with a standard deviation of about eight years.

By the time their first child is four years old, 25 percent of the mothers return to the labour market, of which 13% work part-time and 12% work full time. This leaves us with 75% of the mothers who return to the labour market *after* their child enters elementary school or who never

[13] We also controlled father's occupational status when his child was 13 years old, but found no additional effect.

return. Of the mothers who work when their child is 13 years old and about to make its transition into secondary school, 13 percent hold a low, 10 percent a medium, and 16 percent a high occupational score. Thus, 61 percent of the mothers in the database do not work while their child makes its transition into secondary school. On average only every second mother has one intermission during her career. This suggests that mothers do not often interrupt their careers. They either quit or continue their employment steadily.

The average occupational status score of mothers before childbirth is 42 points on the ISEI scale (4.21*10). Only 6% of the mothers never worked before childbirth. The father's average occupational status score before childbirth is higher than that of the mother. Most of the fathers in the data work full time and longer, their average working hours ranging at 39 hours, with a standard variation of 16 hours. If mothers return to work in the preschool years of their child, than they hold a job with on average 26 hours a week (table not shown). This is in line with recently published numbers (Hooghiemstra 1997).

Table 3.2 Ranges, Means and Standard Deviations of the Variables in the Analysis

Variable names	Ranges	Means	SD
Children's Ranked Education	1-100	52.18	28.69
Children's Education	1-8	4.04	1.70
Age of Children	13-47	24.40	7.55
Mother Worked Up to 3 Days (Child 0-4 Years)	0/1	0.13	-.-
Mother Worked 4-5 Days (Child 0-4 Years)	0/1	0.12	-.-
			-.-
Mother's Occupational Score Low (Child 13 Years)	0/1	0.13	-.-
Mother's Occupational Score Medium (Child 13 Years)	0/1	0.10	-.-
Mother's Occupational Score High (Child 13 Years)	0/1	0.16	-.-
Mother's Number of Intermissions	0/1	0.53	-.-
Control Variables			
Mother Not Employed Before Childbirth	0/1	0.06	-.-
Mother's Occupational Status Before Childbirth	0.1-0.9	4.32	1.47
Mother's Age at Point of Survey	32-70	49.34	8.07
Mother's Education	1-8	3.12	1.62
Father's Education	1-8	3.67	1.96
Father's Occupational ISEI Score Before Childbirth	1.0-9.0	4.50	1.61
Father's Working Hours (Child 0-4 Years)	0-80	38.97	15.87
Number of Cases		*804*	

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995.

Table 3.3 Proportions of Homemaking Mothers before Childbirth and 13 Years after Childbirth by Age of the Mother at Interview

Age of Mother	Homemaker Before Childbirth	Homemaker Thirteen Years After Childbirth	Total Number of Cases
32 - 40 Years	8.8%	47.2%	126
41 - 50 Years	4.5%	55.6%	335
51 - 60 Years	6.9%	68.3%	262
61 - 70 Year	8.0%	79.3%	81
Column Total	6.3%	60.9%	804

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995.

Table 3.3 shows how the percentage of homemaking mothers has changed over the years, before and 13 years after their first childbirth. Throughout all the age groups only 6% of the mothers were never in paid employment before childbirth. This number varies very little between the age groups. Thirteen years after their first child is born the labour force participation of the mothers shows a distinct pattern, related to their age group. The older the mother is at the time of the interview, the more likely she is a homemaker. The younger the mother, the more likely she is to be in paid employment. Only 47% of the women between 32-40 years old, but more than 79% of the mothers between 61-70 years, are homemakers when their first child is a teenager. Thus, the data confirms the overall found trend that the employment rate of mothers is highly related to their birth cohort.

3.4 Results

Multiple regression is carried out using the ranked score of the formal education of the child as a dependent variable. The unstandardized (b_i) coefficients for each effect and the adjusted model R^2 for each analysis are presented in Table 3.4. To study the topics of this paper separately, maternal time and resources, we have decided to carry out the analysis in three steps. We first estimate the effects of the mother's time investments in her career in the time budget model, while checking the influence of the control variables. After that we separately investigate the influence of the additional resources of the mother through her paid employment. Thirdly, we display the results of the former models together in one model. Our first two hypotheses hold that a mother's out-of-home employment, especially for the time when her child is a preschooler, is negatively related to the educational outcome of her child. On the one hand, her labour market entry *per se* and, secondly, the extent of her employment, is expected to be related negatively to the child's education, according to the *time budget argument*. The results of this analysis can be seen in the first three

rows of Table 3.4. The reference category consists of mothers who stay at home while their child is a preschooler.

Table 3.4 The Influence of Mother's Time Budget and Occupational Resources on Children's Educational Attainment

	Children's Ranked Education (Unstandardized Coefficients, T-Values in Parentheses)		
Variable names	(A) Time Budget	(B) Resources	(A) + (B)
Child 0-4 Years			
Mother did not Work (Reference Category)	0.0		0.0
Mother Worked Up to 3 Days	-4.06 (1.4)		-2.68 (0.9)
Mother Worked 4-5 Days	2.81 (1.0)		4.28 (1.5)
Child 13 Years			
Mother did not Work (Reference Category)		0.0	0.0
Mother's Occupational Status Low		-7.10 (2.5)*	-7.20 (2.4)*
Mother's Occupational Status Medium		-1.43 (0.4)	-2.00 (0.6)
Mother's Occupational Status High		-4.00 (1.3)	-4.44 (1.5)
Mother's Number of Intermissions		0.88 (1.3)	1.38 (1.0)
Control Variables			
Mother Not Employed Before Childbirth		-9.82 (2.6)**	-9.61 (2.6)*
Mother's Occupational Status Before Childbirth	-8.61 (2.3)*	2.13 (2.7)**	2.17 (2.8)**
Mother's Age at Point of Survey	2.12 (2.8)**	0.38 (3.2)**	0.38 (3.2)**
Mother's Education	0.40 (3.4)**	2.30 (2.8)**	2.28 (2.8)**
Father's Education	2.37 (3.0)**	4.23 (6.6)**	4.19 (6.5)**
Father's Occupational ISEI Score	4.20 (6.5)**	0.41 (0.6)	0.52 (0.7)
Father's Working Hours	0.56 (0.8)	0.07 (1.2)	0.06 (1.1)
	0.07 (1.2)		
Constant		-1.01 (0.14)	-1.65 (0.2)
	-3.79 (0.5)		
Adjusted R square		0.221	0.223
	0.220		

* = $p<0.05$; ** = $p<0.01$

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995.

In neither of the analyses carried out was the time restriction of the mother's employment significant. This means that the educational attainment of children from employed mothers does not differ significantly from the educational attainment of children whose mothers stayed at home and took

care of the child.[14] We do see, however, that the coefficient for mothers who work up to three days is negative, whereas the coefficient of mothers who work four and more days has a positive sign. Therefore, in a second instance (table not shown), we have checked whether the effect of up to three days of employment differs significantly from the effect of four and more days of employment. Now the reference category consists of mothers working up to three days. On a 10% significance level, children of mothers who work four and more days had a higher educational attainment than children of mothers who work up to three days.

The second argument made in this chapter is that, according to the *resource argument*, the mother's occupational resources support the educational attainment of her child. As the most important time to transfer the mother's job resources we have identified the period when the child is 13 years old and about to make its transition into secondary education. For this argument we find no support. Only if the mother helds a low occupational status when her child was 13 years old did it negatively influence her child's educational attainment. Otherwise, the effects of her occupational status remain insignificant. Also, the mother's number of career intermissions does not significantly relate to her child's educational attainment.

If we enter both, the time budget and the mother's occupational resources, into the analysis simultaneously, we observe that the effects of the two blocks of variables essentially do not change. It cannot be maintained that the effects of the mother's employment, neither her time budget nor her occupational status, balance each other. Essentially, only mothers who reenter or remain at a low occupational level throughout their childrearing years have a significantly negative influence on their child's educational attainment.

The 'additional-worker' argument perhaps best explains the latter result. If the husband's employment is insufficient to sustain the family, it may result in a forced labour market entry by the mother to obtain a second paycheck. Often the need to find a job quickly, however, does not combine well with the quality and the status of the occupation found.

In the set of control variables we observe that if the mother was not employed before childbirth, it results in a large and significantly negative effect for her child's educational attainment. On the other hand, the occupational status of the mother before childbirth also has a large, but this time significantly positive effect on her child's educational attainment. For every 10 points on the occupational status (remember that the ISEI scale was divided by 10), the child gains about two points for its educational ranking score. The mother's and father's educational level influence the child's educational level in the expected, significantly positive way. The father's employment resources and time budget are not significant for the child's educational attainment.

A word of caution may be at order. We here apply a very strict concept for the

[14] We also tested for significant differences in educational attainment between boys and girls and found no indication for such an effect.

measurement of the influence of the mother's occupational resources, if we control for her occupational status before childbirth. Of course, a mother does not suddenly 'lose' her occupational resources by giving birth to a child. The question here would be whether it is better for a mother to stop working and take care of the child at home. As the working hours of the mother in the preschool years of her child are not harmful for the educational attainment of either boys or girls, another interpretation of the above results of model (A) is possible. It can be posed that if the mother continues her employment after childbirth this does not influence her child's educational attainment negatively.

3.5 Conclusions and Discussion

We started this investigation with the question whether the restricted time available to working mothers influences the educational achievement of children in a negative sense or whether through her additional resources gained at work her child's educational attainment is influenced positively. The answer we can give to this question, based on the above evidence, is that only if the mother reenters or remains at a low occupational status position her continued labour market participation is harmful for the child's educational attainment.

Looking at the results in detail, we found no support for the *time budget argument*. Neither her absence from home when she was employed during the child's early childhood years, nor the extent of her employment is negatively related to the child's educational performance. Mothers who are homemakers after childbirth do not enhance the educational performance of a child more effectively than working mothers.

With respect to the *resource argument*, the mother's occupational status is not influential at the time when the child makes the transition into secondary education as long as she does not work in a low status occupation. Earlier, Dronkers has argued a similar point (1992): "[...] if she is employed at the working-class level her paid employment affects the educational chances of her children negatively"[15]. Therefore, it is the occupational status level at which the mother is employed and not her employment *per se* that matters for the educational attainment of her children.

In a sense indirect support for the resource argument exists. The additional resources, which a mother acquires from her paid employment before childbirth, help her child to get on in school. They serve the child's educational performance better than if she was never employed before. Again, we can only emphasise the point that mothers who remain or reenter at a low occupational status level negatively influence the educational attainment of their child. The latter results may underline the strength of the *resource argument* regarding the entire socioeconomic position of the child's family. The employment of the mother at a low status level, when the child is about to enter

15 "[...] indien het een arbeidsterberoep is, heeft het werk buitenhuis een negatieve effect op de onderwijskansen van haar kinderen" (p.154).

its secondary education, may indicate that the family is lacking enough economic resources to sustain the family by the job of the father. Therefore, our *resource argument* perhaps should be called a 'lacking resource argument': If the mother is forced to add to the family's socioeconomic resources by being employed at a low occupational level, the educational attainment of her child is influenced negatively.

Obviously, our conclusions differ from those of Van der Slik and Felling (1999). They showed that the mother's working hours had a negative impact on boys' educational attainment if the childcare facilities used by the family varied a lot. However, it might be the case that the parents could not afford proper childcare facilities continuously. The quality of childcare facilities may partly explain why some parents would switch more often from one facility to the next than others. Yet, Van der Slik and Felling were unfortunately unable to retrieve a measure for the quality of the childcare employed by the parents.

Another important conclusion is that many standard measurements of social stratification have a distinct effect. The educational levels of both parents explain a great deal of the school performance of children. Yet, as the mother's occupation displays a strong additional effect with respect to the children's schooling, taking her occupational traits into consideration in future studies on educational inequality will be necessary.

For future investigations it will be interesting to see to what extent the increasing participation of fathers in the upbringing of children must be considered for future studies on this subject. If the child is taken care of by the father while the mother is working, the time budget hypotheses are not valid anymore. Another question is whether the mother's occupational status is effective not only for her children's education but also for their occupational choices. In Chapter 4 we will see whether primarily the daughter's or the son's first occupational attainment is influenced by maternal occupational status, or maybe both sexes equally.

Chapter 4 Intergenerational Transfer of Occupational Status and Sex-Typing: How Parents' Jobs Influence Children's Jobs at Labour Market Entry[16]

Abstract

To what extent do the mother's and father's jobs status and occupational sex-typing influence the status and sex-typing of their children's occupation at first entry into the labour market? Our database contains 5027 respondents of two merged Dutch surveys held between 1992 and 1995. The effect of the mother's occupational status on her daughter's is significant, but smaller than either the effect of father's status on his son's or his daughter's status. The mother's occupational sex-typing is related to her daughter's occupational sex-typing. The more female sex-typed the daughter's occupation, the lower her occupational status. In the same way the father's occupational sex-typing is related to his son's occupational sex-typing. While the extension of the classical status attainment model by the mother's occupation and occupational sex-typing leads to interesting and new coefficients, we conclude that the more elementary classical model is not invalidated by these new perspectives.

4.1 Introduction

In studies on status attainment it has uniformly been confirmed that the occupational status of the father and that of the son are positively associated (Blau & Duncan 1967, Ganzeboom & De Graaf 1983, Goldthorpe 1987, Rijken 1999). With respect to the Netherlands it has also been confirmed that the total and direct influence of the father on the status attainment of his children has decreased

[16] This chapter has been presented at a IWPR Congress (Washington D.C. 1998) and published together with Karin Sanders in the conference proceedings. A Dutch version of this chapter is forthcoming in *Mens en Maatschappij* (2000) and co-authored by Karin Sanders and Harry Ganzeboom.

in recent decennia. Simultaneously, the influence of individual achievement, measured by the impact of the children's education, has increased (e.g. De Graaf & Luijkx 1992, Hendrickx & Ganzeboom 1998). These conclusions on the structure of and trends in parental influence is based on observations of the influence of the father only. The influence of the mother has not yet been considered.

The assumption made in studies on status attainment is that excluding the influence of the mother's job status does not invalidate the empirical model. However, with the increasing labour market participation of mothers, long-standing claims (Acker 1973) that the mother's status background forms an additional source of intergenerational status transfer are becoming more plausible. It is possible that by including the influence of the mother's occupational background, the standard conclusions regarding the size and trend of intergenerational status transfer may have to be modified. Models that only include the influence of the father's occupation perhaps underestimate the total size of intergenerational status transfer. In addition, the trend towards a decreasing impact of family background may be an artefact, because thus far we have overlooked the increasingly important influence of the mother's status background. This study therefore investigates the influence of the mother's occupation on the occupational status of her children: to what extent do the parameters of the classical status attainment model (Blau & Duncan 1967) change if the occupational status of the mother is added as a predictor and how does the influence of the mother develop over time? We will answer this question not only for Dutch sons but also for Dutch daughters.

Previous empirical results regarding this problem have produced a less homogeneous picture than the one commonly found in research on male mobility. Peschar (1988), in a comparison of parental status transfer in Hungary and the Netherlands, discovers that the status transfer pattern for the mother and the father are essentially the same. He excludes, however, the influence of mothers' occupations in the Dutch population. Therefore, his conclusion may be a misleading one. The exclusionary practice regarding the influence of the mother's occupation in some cases has even lead researchers to conclude that the father has a stronger influence on the daughter and the mother's status background influences her son more than her daughter. They thus suggest that cross-sex effects prevail between parents and children (Holland Baker 1980, McClendon 1976).

Studies that do include the influence of the mother's occupational status on the daughter's job show that she has a profound impact (Treiman & Terrell 1975, Rosenfeld 1978). A recent study for the USA (Khazzoom 1997) shows that the influence of the mother's occupation is crucial in order to explain her daughter's achieved status later in life; for the daughter the mother's background is more important than the father's, and maternal influence is greater for the daughter than for the son. This result suggests that we may be examining two separate cases: the male and the female process of status attainment. Other research, although including the effects of the mother's job status, nevertheless deviates from the above findings. Crook (1995) identifies no gender

orientation. Aschaffenburg (1995) contends that professionally employed mothers help only professionally employed sons, not daughters.

A fact that may complicate the study of the influence of maternal occupation and might explain the varying results is that the distribution of men and women over occupations, thus also of fathers and mothers, differ from each other. Only minor differences exist regarding their average occupational status; the most pronounced difference is found in their occupational sex-typing. The sex-typing of an occupation is the ratio of female to male incumbents in a job. Jobs with mainly male incumbents are male sex-typed, whereas jobs with mainly female incumbents are female sex-typed occupations. Frequently the substance of sex-typed job traits varies qualitatively. It has been suggested that this affects their status evaluation (Faber 1988). For instance, in computer jobs or in sales and clerical occupations, a negative relationship exists between occupational status and sex-typing (Tijdens 1997, Powers & Holmberg 1978). Women's lower pay is often defended on the basis that women's jobs are pleasant, safe and comfortable, as opposed to the noisy, dirty, and dangerous male jobs (Jacobs 1990). Glick et al. (1995) show that male-typed occupational attributes, like "masculine personality trait requirements" and "analytical skills" enhance job status (p.565). Under-achievement marks many female employment histories and it is often attributed to women's entry into female sex-typed occupations (Dex 1987, Rosenfeld & Spinner 1995, Li et al. 1998). Although female-typed occupations clearly have fewer rewards concerning money and promotion, women continue to work in them (Marini 1989, Jacobs 1990, Xu & Leffler 1992, Jacobs & Steinberg 1995). Over time the sex-typing of occupations has continued to be a prominent feature of the Dutch labour market (Van Mourik et al. 1983, Van Mourik & Siegers 1988). One obvious explanation is that female sex-typed jobs enable women to combine their family obligations with their employment more easily. Daughters possibly follow their mother's example if they see that their mother is working in a sex-typed occupation and conclude that it is a successful strategy for themselves to combine family and work obligations.

It may be the case, therefore, that choosing a sex-typed occupation has an intergenerational component, i.e. that sons follow their father's and daughters follow their mother's example. Studies of intergenerational mobility commonly do not consider the dimension of occupational sex-typing. If the transfer of status is related to the transfer of the occupational sex-typing, this implies that the classical model of status transfer underestimates the size of intergenerational status transfer. The main issue in this chapter is how intergenerational transfer patterns of occupational status and sex-typing change, if we add the mother's background to the classical model of status attainment, whereby the focus rests on the following research questions:

(a) *How does the status and sex-typing of the mother's, in relation to the father's occupation influence the status and sex-typing of the occupations of daughters and sons?*

(b) *How have these relationships changed over time?*

The Netherlands is a particularly interesting case because recently mothers' employment rates have risen quite dramatically (CBS 1994). We analyse how parental background matters for children's first job after they finish their school. Various reasons exist for concentrating on the first occupations of children and exempting later jobs. First, most women have held at least one job before they exit from paid employment. Later in life many women interrupt their careers because of childbirth or family obligations. Secondly, job status of the first occupation is salient to later career prospects. Earlier studies have shown that a very strong positive relationship exists between initial and later job status (Dronkers & Ultee 1995). Thirdly, a child's first occupational status is the main connection between the influence of family background, educational investments and the later career. The influence of family background is greatest at the beginning of the career (Blau & Duncan 1967). Later it is previous on-the-job-performance which becomes increasingly important. Fourthly, studying transfer patterns on first jobs simplifies cohort comparisons.

4.2 Theory and Hypotheses

4.2.1 Historical Trends

The starting point of this analysis is a modified version of the classical status attainment model as proposed by Blau and Duncan (1967). The modification consist of excluding the influence of the education of the parents and the current job of the respondent. Our model concentrates on the relationships between the following components of the status attainment model: father's and mother's occupation, daughter's and son's education, and daughter's and son's first occupation. Previous research in the Netherlands is quite consistent with Blau and Duncan's observation that the father's education has no substantial direct influence on his son's first job status (e.g. De Graaf & Luijkx 1995). Therefore, the influence of the educational level of the parents can be neglected when determining parental status transfer on the first occupational status of children.

Status attainment research in the Netherlands has shown that, over time, total intergenerational status transfer has decreased (Ganzeboom & de Graaf 1983, Ganzeboom & Luijkx 1995, Ganzeboom et al. 1989). Individual achievement by attained educational level, on the other hand, has become increasingly important (De Graaf & Luijkx 1992, Hendrickx & Ganzeboom 1998). To explain these results, it can be assumed that in general modern societies are becoming more open (Rijken 1999). Although several studies show that the influence of the mother's job is relevant with regard to children's occupational locations, the historical trends in her status transfer have been given little attention. If the mother's background also matters, we can presume that the influence of the mother's occupation on the first occupational status of her children is also decreasing.

According to Lopata (1994), the change of the female role - as more mothers enter the economic mainstream - has tilted authority and power relationships within the family away from the father towards the mother. Therefore, we can presume that although the influence of the mother's

occupational status is decreasing, relative to the influence of the father's occupational status her impact may have increased. In other words, the impact of both parents is diminishing, but this is less true for mothers than it is for fathers. An empirical study by Van der Lippe et al. (1995), carried out for the Netherlands on intergenerational educational reproduction, offers some support concerning this hypothesis. They show for birth cohorts born between 1906 and 1965 that the influence of the mother's education, compared with that of the father, on the educational attainment of their children has recently increased. In conclusion we state the following hypotheses:

(1) Over time:

(a) the influence of both parents' occupational status on their child's first occupational status is decreasing,

(b) the influence of child's education on his or her first occupational status is increasing, and

(c) the influence of the mother's occupational status on the child's first occupational status is increasing relative to the influence of the father's occupational status.

4.4.2 The Sex-Role Model

The next question is how parental job status and sex-typing influences the status and sex-typing of children's occupations. Do parents serve as a role model not only for the decisions of children regarding their job status but also regarding their job's sex-typing? It has often been suggested that daughters may prefer an occupation more similar to their mother's than their father's job (Rosenfeld 1978, Stevens & Boyd 1980, Pearson 1983). Accordingly, empirical research shows that the size of status transfer differs between sexes, and that mother's job is more important for the daughter, while the father's job is more important for his son's occupational status.

Within the sex-role identification theory, behavioural or attitudinal similarity is explained by the concept that children identify with their same sex-parent on the basis of their supposed expert power (Acock & Yang 1984, for an overview on mothers and daughters: Boyd 1989). Research on how sex-role models are transferred from one generation to the next confirm that children have a strong same-sex orientation (Smith & Self 1980, Starrels 1992). In many ways sons and daughters take their same-sex parent as an example for themselves (e.g., Huttunen 1992, Updegraff et al. 1996). Thus, children may also tend to follow their parents' example regarding the sex-typing of their occupation. Taken together the theoretical and empirical evidence lead us to the following hypotheses:

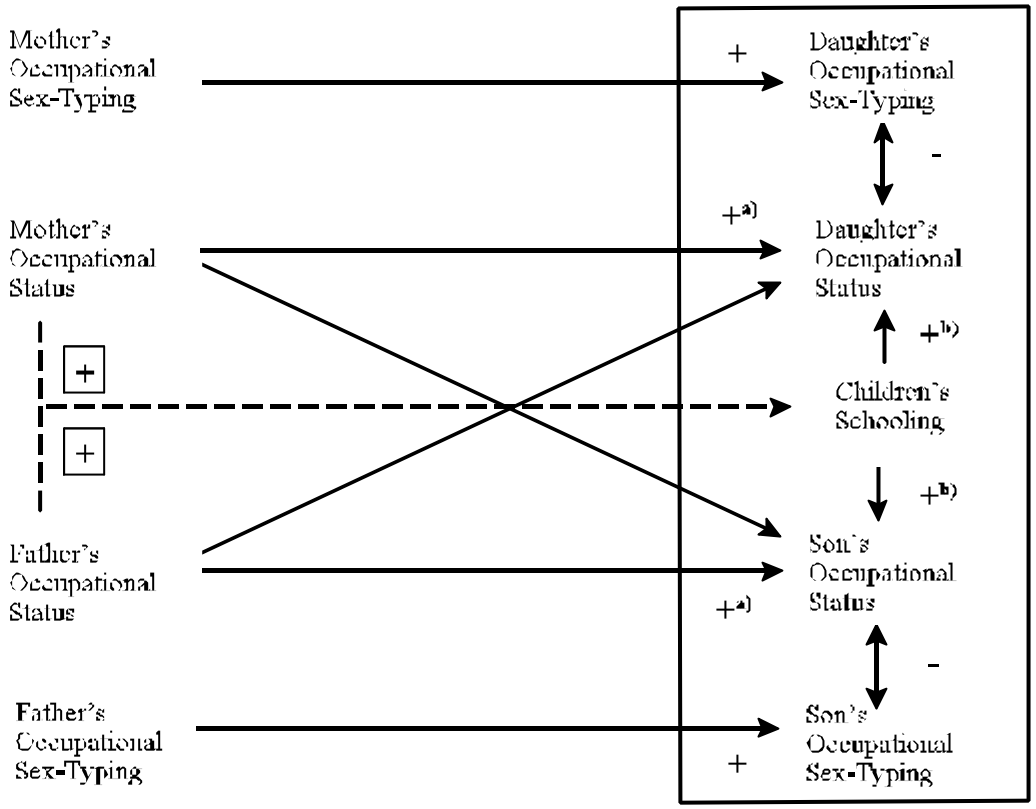
(2) The relationship between the same-sex parent and child is stronger than the relationship between the cross-sex parent and child regarding:

(a) occupational status and

(b) occupational sex-typing.

The entire theoretical model is displayed in Figure 4.1. The relationships indicated in the box on the right-hand side of the model are of particular interest within our research. The relationships found

outside this box are controlled in our model.



a) Decreasing over time.
b) Increasing over time.

Figure 4.1 Theoretical Model (Box) and Status Relationships

4.3 Data and Methods

Sources of data available that include an adequate measurement of the mother's occupational status and children's first occupational status are the Households in the Netherlands 1995 (HIN95) and the Netherlands Family Survey 1992-1993 (FAM93). The two surveys contain retrospective interviews on occupational careers of both male and female respondents. We select respondents younger than 64 years, born between 1927 and 1975, with valid data on their first occupations. The remaining database contains 5027 respondents of which 2496 were women and 2531 were men.

The unit of analysis is the respondent, and we study the degree to which the status and sex-typing of his or her first job after finishing school depended on the job status and sex-typing of the parents. If, beyond the attainment of an educational level, a period of at least two years of educational inactivity follows, we define an educational career as being completed. The first occupation entered after finishing school serves as the dependent variable. The mother's occupation

is valid if information exists about at least one occupational title she held either during the adolescence of the respondent or, if absent, before her marriage. Otherwise she is regarded as non-actively employed during her entire life (homemaker).
The two dependent variables are the respondent's occupational status and the male to female ratio

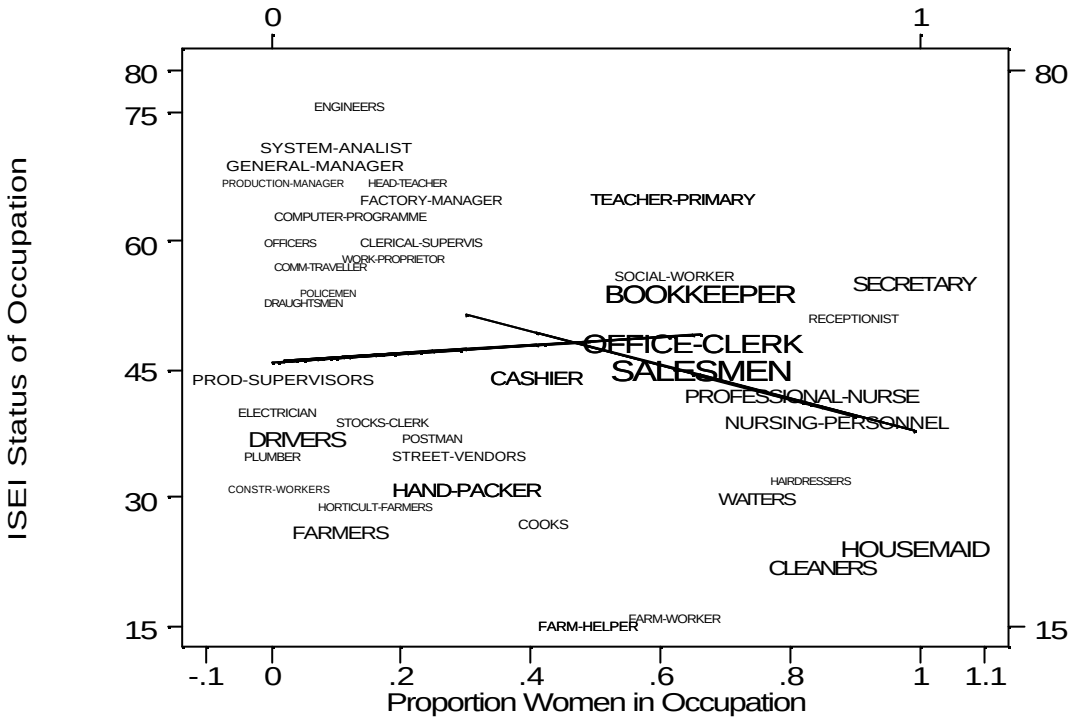


Figure 4.2 The Relationship Between Occupational Status and the Proportion of Women in the Occupations

of her or his first job. The job status is coded by the International Socioeconomic Index (ISEI) of Occupational Status (Ganzeboom & Treiman 1996). Originally, ISEI codes range from 10 to 90. To give occupational sex-typing and status the same zero to one range, we have divided the ISEI scale by 100, subtracted 0.1 points and then multiplied it by a fraction of 1/8. If the mother is a homemaker, she receives the value of the overall average maternal occupational status. Simultaneously she is coded 'one' on a separate dummy variable measuring the influence of the homemakers (Cohen & Cohen 1976, p. 274ff.).

The score for the occupational sex-typing was calculated from the unweighted 'Enquête Beroepsbevolking' (N=47,621) of the year 1991(CBS 1991). The relationship between occupational status and sex-typing is complicated by the fact that it is different for men and women. To demonstrate this relationship we illustrate in Figure 4.2 how the proportion of women in occupational clusters is connected to the status of jobs (measured by a four digit CBS occupational code from 1984).

Only large occupational clusters are shown; the size of the cluster is indicated by the font

size of the letters. The regression lines for men (left) and women (right), however, are based on the entire data set. Most women are found on the on the right hand side of the figure, men on the left hand side. We observe a strong negative relationship between occupational status and female dominance for women: the higher the percentage of women in a job, the lower a woman's occupational status. For men this relationship is weaker and reversed: the more female-dominated an occupational cluster is, the higher the occupational status (see Figure 4.2). These relationships are best summarized by considering occupational sex-typing to be sex-specific: for women occupational sex-typing increases as the percentage of females in a job cluster increases; for men occupational sex-typing increases as the percentage of males in a job cluster increases. The occupational status and sex-typing of the mother and the father and the education of the respondent are the most important independent variables in this analysis. Furthermore we introduce a control for respondents who have exactly the same occupation as their same-sex parent.

In Table 4.1 we show the ranges, means and standard deviations of all variables included in the analysis. Of all the mothers in the data set, 38% were homemakers without an occupational score of their own. The fathers' jobs had on average a sex-ratio of 81:19 men to women. This means that the fathers in our data set were working in occupations with on average 81% male and 19% female incumbents. For mothers' jobs we note an average ratio of 29:71 men to women. If we look at the sons and daughters in the data set separately, we observe a slight trend towards on average less sex-typed occupations. While mothers work in jobs with on average 71% female incumbents, their daughters work in jobs with on average 69% female incumbents. Sons work in jobs with an average of 75% male incumbents, compared with their fathers who worked in jobs with 81% male incumbents.

Regarding the occupational status of men and women we also see interesting differences between the two generations. While the difference between the average job status between the mother and the father amounts to seven points (43 and 50) the average occupational status of the first job of daughters is slightly higher, compared to sons (51 for daughters, 50 for sons).

The education of the respondent is measured as a year-proxy variable. The value of this variable is based on the approximate number of years it takes for a student to attain a certain educational level in the Dutch educational system. Of all children in the data set, 5% of the sons and 4% of the daughters had held exactly the same job as their mother or father at entry into the labour market.[17]

[17] We also controlled how many of the respondent who held exactly the same entry job as their cross-sex parent, but they were outnumbered by children who had identical jobs as their same-sex parent. Altogether, 6.8% (265) of the respondents had the same job as either the father or the mother. Yet, females followed their mother's example in 78% (100) of all cases and males followed their father's example in 83% (115) of all cases.

Table 4.1 Ranges, Means and Standard Deviations of the Variables in the Model

Variable	Ranges	Mean	SD
Occupational Status Sons	0 - 1	0.50	0.18
Occupational Status Daughters	0 - 1	0.51	0.17
Occupational Status Mothers	0 - 1	0.43	0.13
Mother is a Homemaker	0/1	0.38	-.-
Occupational Status Fathers	0 - 1	0.50	0.18
Occupational Sex-Typing Sons	0 - 1	0.75	0.26
Occupational Sex-Typing Daughters	0 - 1	0.69	0.24
Occupational Sex-Typing Mothers	0 - 1	0.71	0.20
Occupational Sex-Typing Fathers	0 - 1	0.19	0.21
Son has the Same Occupation as Father	0/1	0.05	-.-
Daughter has the Same Occupation as Mother	0/1	0.04	-.-
Education Respondent	6 - 17	11.74	2.94
Year of Birth Respondent FAM93	27 - 75	1951	10.68
Year of Birth Respondent HIN95	27 - 75	1955	10.94

Source: Family Survey in the Netherlands 1992-93; Households in the Netherlands 1995.

We judged children to have exactly the same occupation as their parents if the four digit CBS code for their occupational title of the same-sex parent and child was identical. The latter variable is used to contrast the effects of mobile parent-child dyads with immobile children-parent dyads. It enables us to control the direct effects of immobility.

We estimated a path model in LISREL that related the causal effects of the independent variables on the two dependent variables and between the two dependent variables (Jöreskog & Sörbom 1993). One has to account for the fact that individuals attain both their occupational sex-typing and status simultaneously. It is undetermined whether occupational status influences occupational sex-typing or vice versa. The effects of occupational sex-typing and status were therefore estimated simultaneously (see Figure 4.3). The correlation matrices used in the analysis are presented in appendix B.

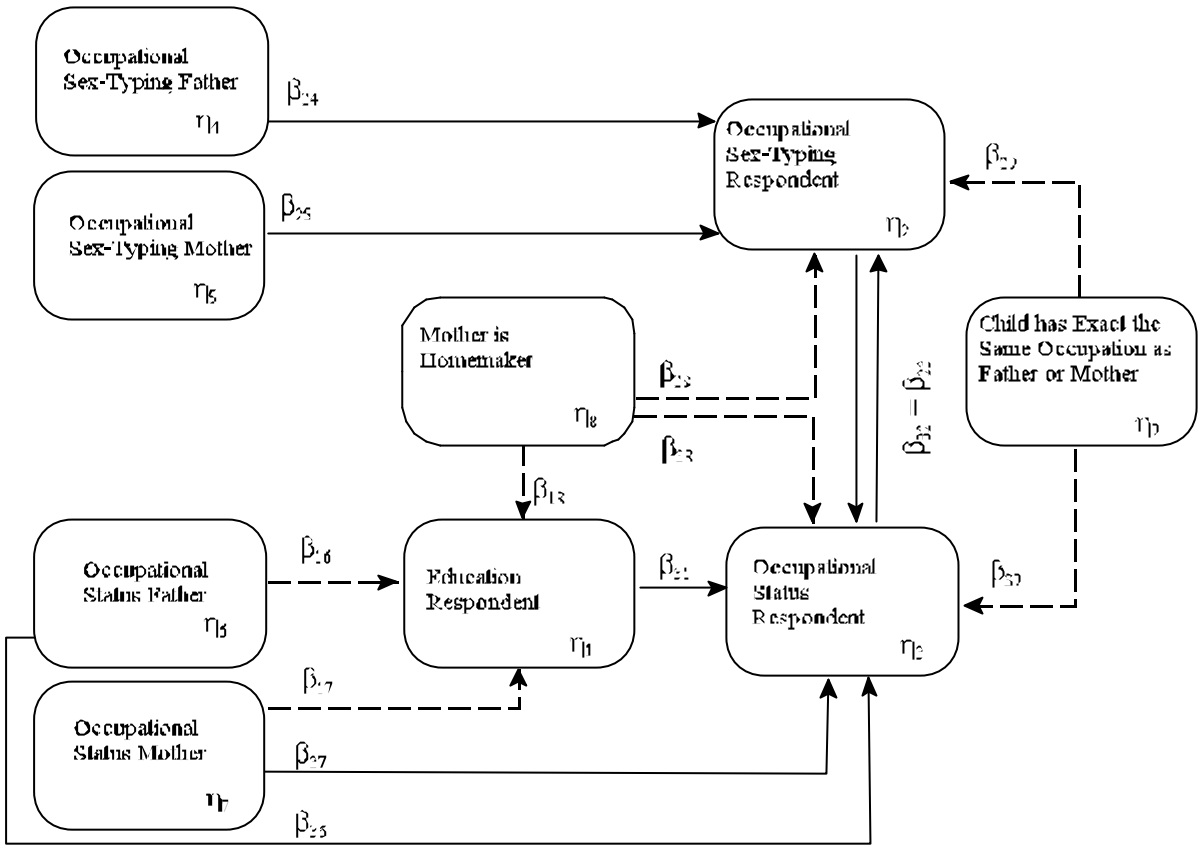


Figure 4.3 LISREL Model Displaying the Paths Between the Dependent and Independent Variables

4.4 Results

The first analysis is directed at answering the question whether the initial analytical choice to distinguish old from young cohorts is statistically required. In Table 4.2 we have constrained the parameters of the LISREL model so that the two cohorts are equal. The aim was to investigate whether, between the groups, the parameters were equally important or differed significantly. A significant improvement of the Chi-square in the table shows that the influence of one parameter was significantly different in one group as opposed to the other.

Table 4.2 Equality Constraints and Fit Statistics for Daughters and Sons, Cohort 1927-1958 and Cohort 1959-1975

Unconstrained parameter	DF	Daughters 1927-58 : 1959-75		Sons 1927-58 : 1959-75	
		χ^2	$\Delta \chi^2$ a)	χ^2	$\Delta \chi^2$ a)
None	27	89.04	--	49.70	--
(β_{37}) Mother's Occupational Status => Respondent's Occupational Status	26	86.58	2.46	46.67	3.03
(β_{36}) Father's Occupational Status => Respondent's Occupational Status	26	76.42	**12.62**	49.27	0.43
(β_{17}) Mother's Occupational Status => Respondent's Education	26	88.17	0.87	49.10	0.60
(β_{16}) Father's Occupational Status => Respondent's Education	26	78.98	**10.06**	49.14	0.56
(β_{31}) Respondent's Education => Respondent's Occupational Status	26	66.40	**22.64**	46.52	3.18
(β_{25}) Mother's Job Sex-Typing => Respondent's Job Sex-Typing	26	88.81	0.23	48.86	0.84
(β_{24}) Father's Job Sex-Typing => Respondent's Job Sex-Typing	26	88.03	1.01	48.71	0.99
($\beta_{23=32}$) Respondent's Job Sex-Typing <=> Respondent's Occupational Status	26	84.20	**4.84**	46.90	2.80
Control Variables:					
(β_{38}) Mother is a Homemaker => Respondent's Occupation	26	81.36	**7.68**	49.14	0.56
(β_{28}) Mother is a Homemaker => Respondent's Job Sex-Typing	26	88.99	0.05	47.75	1.95
(β_{18}) Mother is a Homemaker => Respondent's Education	26	89.04	0.00	49.61	0.09
(β_{39}) Same Job as the Same-Sex Parent => Respondent's Job	26	88.60	0.44	46.51	3.19
(β_{29}) Same Job as the Same-Sex Parent => Respondent's Job Sex-Typing	26	88.61	0.43	49.70	0.00

a) $3.84 = p < 0.05$; $6.63 = p < 0.01$

Source: Family Survey in the Netherlands 1992-93; Households in the Netherlands 1995.

It did not improve the model fit significantly if the son's status background variables were measured separately over two cohorts. Therefore the two cohorts of sons were collapsed in the following analysis. For daughters we observe a significant deterioration of the model fit if effects were forced to be equal between the two cohorts for the following variables: the effect of father's occupational status on daughter's occupational status (β_{36}) and the daughter's education (β_{16}), of the daughter's education on the daughter's occupational status (β_{31}), of the daughter's occupational sex-typing on her occupational status ($\beta_{23=32}$), and of one control variable, which was the effect of mothers who were homemakers on the daughter's occupational status (β_{38}). These variables will hereafter be allowed to vary over the two cohorts of daughters.

4.4.1 Historical Trends

In Table 4.3 we show the beta coefficients and T-values of the LISREL model. We used the correlation matrices of the four cohorts; the coefficients are displayed in a standardized metric format. In the analysis above we selected which of the coefficients can be constrained between the two cohorts in order to obtain the most efficient model. The selected models fit the data well. Therefore we do not have to assume that additional effects have to be included in the model. Some of the remaining effects, however, are not significantly different from zero.

We have assumed in hypothesis 1a, in line with earlier findings, that the overall direct influence of parental status on the occupational status of the children has decreased over time. To test this hypothesis we study the size of β_{36} - the influence of the occupational status of the father - and β_{37} - the influence of the mother's occupational status. The direct status transfer of the mother is small, 0.063 for daughters and almost zero (and non-significant) for sons.

The influence of the father is larger for sons than for daughters, but decreases only for daughters. It decreases to half its size from 0.146 for the oldest to 0.073 for the youngest cohort of daughters. The influence of the father's on the son's occupational status remains stable between the two cohorts (0.135).

Regarding the education of sons and daughters, we see that the influence of the father's job status is on average twice as high as the influence of the mother's job status. Over the two cohorts we note a significant reduction in the influence of the father's occupational status, again only with regard to his daughter's educational level. The influence of both parents on their son's educational attainment remains stable.

Hypothesis 1b holds that the influence of the child's own education increases over time. Therefore we should note an increase of the beta coefficient β_{31}, the influence of the respondent's education on the status of the first occupation. Obviously, this is the case for neither daughters nor sons.

Table 4.3 Beta Values and T-values for Paths in the Model

	Daughters		Sons
	1927-1958	1959-1975	1927-1975
(β_{37}) Mother's Occupational Status => Respondent's Occupational Status		0.063 (3.6)**	0.026 (1.6)
(β_{36}) Father's Occupational Status => Respondent's Occupational Status	0.146 (5.8)**	0.073 (2.8)**	0.135 (7.7)**
(β_{17}) Mother's Occupational Status => Respondent's Education		0.128 (6.4)**	0.139 (7.0)**
(β_{16}) Father's Occupational Status => Respondent's Education	0.334 (12.2)**	0.215 (7.6)**	0.207 (13.6)**
(β_{31}) Respondent's Education => Respondent's Occupational Status	0.438 (16.9)**	0.304 (11.5)**	0.473 (24.5)**
(β_{25}) Mother's Job Sex-Typing => Respondent's Job Sex-Typing		0.043 (2.3)*	0.008 (0.5)
(β_{24}) Father's Job Sex-Typing => Respondent's Job Sex-Typing		0.034 (1.8)	0.068 (3.7)**
($\beta_{23=32}$) Respondent's Job Sex-Typing <=> Respondent's Occupational Status	-0.254 (5.4)**	-0.329 (4.9)**	-0.231 (5.4)**
Control Variables:			
(β_{38}) Mother is a Homemaker => Respondent's Occupation	-0.080 (3.5)**	-0.017 (0.7)	-0.056 (3.8)**
(β_{28}) Mother is a Homemaker => Respondent's Job Sex-Typing		0.017 (0.9)	0.032 (1.6)
(β_{18}) Mother is a Homemaker => Respondent's Education		-0.120 (6.3)**	-0.150 (8.4)**
(β_{39}) Same Job as the Same-Sex Parent => Respondent's Job		-0.047 (2.7)**	-0.047 (2.8)**
(β_{29}) Same Job as the Same-Sex Parent => Respondent's Job Sex-Typing		0.052 (2.6)**	0.040 (2.0)*
Degrees of Freedom		22	27
Chi Square		47.48	49.70
N	1209	1287	2531

* = p<0.05; ** = p<0.01

Source: Family Survey in the Netherlands 1992-93; Households in the Netherlands 1995.

For sons we see that the influence of his education remains stable (0.473), whereas for daughters we even notice a significant reduction of the influence of her education (from 0.439 to 0.304). The empirical evidence thus rejects hypothesis 1b. We do not find that the influence of one's own education on the first occupational status has increased throughout the cohorts. The last part of the first hypothesis (1c) holds that relative to the influence of the father, the influence of the mother's occupational status increases over time. If we compare β_{37} (mother's occupational influence) with β_{36} (father's occupational influence) then for the daughters our hypothesis 1c is confirmed. The influence of the mother's job is altogether insignificant with regard to her son's first occupational status. The influence of the father's job status remains stable between the two cohorts of sons.

4.4.2 The Sex-Role Model

We now test the second hypothesis: the relationship between the occupational status (a) and sex-typing (b) of the parent and the child is stronger between same-sex than between cross-sex parents. Here we have extended the model shown in Figure 4.3 to also include the occupational sex-typing of the parents and the children. The results of this process can also be seen in Table 4.2.

Regarding the influence of the occupational status, we already have observed a confirmation of the expected same-sex relationship. We find no significant influence of the mother's occupational status on the first job status of her son; only for daughters does the status of her job make a significant difference. The influence of the father is on average greater on the first job status of his son than on the first job status of his daughter.

The relationship β_{25} between the occupational sex-typing of the mother on the occupational sex-typing of her daughter is small, but significant (0.043), while it is insignificant for her son. If on average more women than men work in the occupation of the mother, the likelihood of the daughter imitating her mother's choice of a female sex-typed occupation increases significantly.

A positive and significant influence of the father's occupational sex-typing on the sex-typing of his son's first job (β_{24}) exists namely a figure of 0.068. Consequently, the likelihood of sons choosing a male sex-typed occupation is higher if his father has worked in a male sex-typed occupation. The influence of the occupational sex-typing of the father is insignificant for the occupational sex-typing of his daughter. Our second hypothesis receives, therefore, full empirical confirmation. Not only the transfer of occupational status but also the transfer of occupational sex-typing is greater between same-sex parent-child dyads than it is between cross-sex parent-child dyads. Yet, although the intergenerational transfer of occupational sex-typing is significant, it is not very strong. Therefore, the effect of parental occupational sex-typing, as compared to the effect of parental occupational status, are less relevant for the explanation of children's occupational status attainment.

Regarding the relationship between the respondent's occupational status and sex-typing ($\beta_{23=32}$), Table 4.3 indicates that over time it has become more negative for women, dropping from -0.254 in the older cohort to -0.329 in the younger cohort, whereas for men it remains stable at -0.231. In other words, for men as well as for women it is true that their choice in favour of a sex-typed occupation goes hand in hand with a choice for a lower job status. Over time this relationship has become stronger for women.

4.5 Conclusions and Discussion

This study investigates how the relationships within the classical model of status attainment (Blau & Duncan 1967) for children's first occupation status change if we add the status background of the mother to the analysis. The question was whether we also need to take into account the occupational sex-typing of jobs if we consider mothers in the analysis of status attainment. The first conclusion is that we find intergenerational transfer of occupational status and occupational sex-typing, but the strength of the status relationships far outweighs the strength of intergenerational relationships of occupational sex-typing. Despite the relatively strong relationship between sex-type and status of children's occupations, our extension of the intergenerational occupational status attainment model with occupational sex-typing has not much influence on how the status transfer between parents and children is estimated. The intergenerational transfer of the sex-typing of an occupational is rather small.

Our second conclusion is that for both transfer relationships, occupational status and sex-typing, there is more same-sex than cross-sex intergenerational transfer. Daughters follow their mother's and sons follow their father's example. The transfer of occupational sex-typing is even entirely same-sex specific. By contrast, the father's occupational status also seems to effect his daughter's job status, while the mother's job status is insignificant to her son's occupational status.

A third conclusion is that the impact of the mother is weaker than the impact of the father, for sons as well as for daughters. The fourth conclusion is that the expected decrease of parental influence over time, i.e. for the two cohorts we have studied here, was only partly supported. Only for the daughter's status attainment, not the son's, the impact of status transfer decreased. As the influence of the father on the daughter is reduced over time, we can conclude that relative, to the father, the mother's impact becomes more important for daughters. This conclusion is in line with what was established earlier regarding the influence of the mother's education on children's education (Van der Lippe et al. 1995).

Our fifth and last conclusion is that, although we discovered interesting and significant relationships by extending the model and including the transfer of occupational sex-typing, the results of the conventional model of status attainment (including only father's status transfer) have not been invalidated. Given that the extension of our model results in an empirical test that includes more variables with a reduced set of data than captured in the male-based research, both analytical

strategies, the extended and conventional methods, have their advantages as well as their disadvantages.

Our results regarding the historical trends of parental status transfer are not in line with what has earlier been found for the Netherlands (De Graaf & Luijkx 1992, Hendrickx & Ganzeboom 1998, with older data). First, we find a reduced influence of parental occupational status only for the effects of fathers on daughters, while earlier research has shown that this also applies to the relationships between fathers and sons. Secondly, our results do not indicate that the educational level of children is becoming increasingly important for their first occupational status. For daughters the trends are even in the opposite direction. The influence of the daughter's educational level on her first job has recently been less strong.

There are several possibilities which may offer an explanation for our contradicting results. By extending the model to also include the mother's occupational status, and by modelling children's first occupational status only, our choice of adequate data sets was considerably narrowed down. Our database is smaller and covers a more recent period than previous research. Therefore our conclusion may differ from previous studies that have based their conclusions on older data which commonly capture a larger population.

More importantly, we concentrate on the first occupational status of children after they have finished their education (and control very strictly for this), while earlier research studied current occupational levels and controlled for the influence of children's labour market experience on their current jobs. Nonetheless, the results found here may hold for the most recent period studied. Rijken (1999), in her comparative study on the classical model of status attainment, also shows that the correlation between children's education and first occupational status has been decreasing throughout history in the Netherlands. The explanation she offers is that the increasing homogenization of educational levels - observed by the decreasing standard deviation of the educational level in the population - results in less variation and lower correlations between education and the first occupational status in recent times. This explanation is tentative and calls for further investigation.

With respect to the sex-role model our results underline a same-sex orientation in parent-child dyads. For occupational status as well as for occupational sex-typing, we find strong orientations of daughters towards their mothers and sons towards their fathers. Thus, the empirical evidence underlines the existence of a sex-role model within occupational reproduction. Nevertheless, although sons as well as daughters are oriented towards their same-sex parent, children rarely choose exactly the same occupation as their same-sex parent. In the end, the occupational status of the mother has a greater impact on the occupational status of her daughter compared to her son. As a follow up study to this present research, Chapter 5 contains an analysis on how the mother influences the job career of her daughter.

Chapter 5 The Influence of Mother's Occupation on Her Daughter's Occupational Career[18]

Abstract

This chapter deals with the influence of the mother's socioeconomic background on the daughter's occupational career. Sons are excluded because the mother's job appears not to be important for her son's job location. Hypotheses are formulated on two time dimensions: mother's (and father's) status transfer during the daughter's career and throughout historical time. These hypotheses are tested in a continuous state space model. The compiled database contains 6426 job spells from 2475 female respondents in Germany and the Netherlands. The results show that both mother's and father's socioeconomic background are important in determining the occupational attainment of the daughter's career. The daughter's same-sex orientation increases as her career proceeds. She is status immobile with regard to her mother's not her father's occupational status. As a historical process, both mother's and father's influence on their daughter's occupational attainment have been decreasing in a similar way. The mother's and the father's occupational level are more important for explaining the level of their daughter's occupational status attainment than for determining the likelihood of her job transitions.

5.1 Introduction

Because of educational expansion, modernization and geographical mobility, individual socioeconomic mobility has become less predictable, career patterns less rigid and occupational titles increasingly varied (Beck 1983, Henz 1994, Rijken 1999). If career paths are not entirely predetermined at the time of labour market entry, but increasingly subject to change, individuals are

[18] This chapter has earlier undergone an internal referee procedure at the ICS, preceding the ICS forum day in 1998. I thank Wilfried Uunk and Paul de Graaf for their useful suggestions.

required to take more decisions later in life and more opportunities exist to redirect careers. The possibilities to employ parental status resources may also increase.

A common attitude in mobility research has been to assume that the mother hardly has any influence on the occupation of her children, because she is either a homemaker or working in a job that has a lower occupational status than that of her husband. Therefore, studies on social mobility usually focus on the influence of the father's occupational status and neglect the potential effects of the mother's occupational background (e.g. Blau & Duncan 1967, Hauser & Featherman 1976, Ganzeboom & De Graaf 1983, Blossfeld 1989, De Graaf & Luijkx 1992, Handl 1994, Ganzeboom & Luijkx 1995, Rijken 1999). If the influence of the mother is considered, it is usually her educational level, not her occupational status, that is analysed (McClendon 1976, Sewell et al. 1980, Boyd et al. 1981, Roos 1985, Peschar 1987, Grusky & DiPrete 1990, Handl 1991, Dronkers 1992).

Omitting the influence of maternal occupational status from the scope of the study is valid only if the mother has no influence on the occupational status attainment of children. Some empirical evidence contradicts this assumption. For instance, Henz (1994) shows for Germany that the occupational status of the mother is important, but only for the occupational status location of her daughter, not her son (see also Chapter 4). As this research has shown that maternal occupation hardly affects sons' occupational locations at all, we will exclude sons from the current analysis.

Previous research has established that the influence of social origin fades away for every subsequent job of the child (De Graaf & Luijkx 1992). As this conclusion is based on the analysis of the influence of the father only, it may be the case that we are missing important compensating trends, such as an increased transfer of resources from the mother's job status. From the few cross-sectional studies that have dealt with the impact of the mother's occupation on children's occupations, patterns of same-sex status transfer emerge (Treiman & Terrell 1975, Rosenfeld 1978, Pearson 1983, Hayes 1990, Khazzoom 1997, Chapter 4). The explanation is that children select their same-sex parent as a 'blueprint' for their own future occupational plans, on the basis of their assumed 'expert-power' (Acock et al. 1984, Boyd 1989). It also may apply to the status transfer of mothers during the career of the daughter.

Moreover, we have seen in the previous chapter that a change is taking place regarding the influence of the mother's and the father's job status on the occupational location of the daughter. The mother's influence has become more important relative to the father. A plausible explanation is that over the years the educational expansion and growing labour market participation of mothers have led to an increase of her status resources. These developments may have been causing a reversion of the decreasing trend in the importance of social origin on the occupational status attainment of children usually found (Featherman et al. 1975, Treiman & Yip 1989, Rijken 1999).

Thus, the research problem of this chapter is to study how important the father's and the mother's occupational statuses are for the career opportunities of the daughter. The analytical focus

rests on the following questions:

(a) *How do parents' role models affect the occupational career of the daughter?*

(b) *How has the influence of the mother's occupation, compared to that of the father's, developed over time?*

When researchers use cross-sectional data and methods, they implicitly or explicitly make the assumption that the social and economic context in which people move remains stable. For instance, in their early pioneering approach Blau and Duncan (1967) investigated 'synthetic' cohorts, by stacking different age groups on top of each other. If changes in status transfer occur between the cohorts, they assume this is because of differences in the individuals' ages. Obviously, 'age' covers only part of the explanation of people's career dynamics. Therefore, here the parents' influence is studied not only at one point in time but approached dynamically. Opting for a dynamic approach enables us to measure the influence of mothers' and fathers' backgrounds on their daughter's career, after controlling the effects of the daughter's own earlier career achievements and life history.

Moreover, to display mobility processes correctly, not only does one need to study the size of intergenerational status transfer, but also the time it takes for a person to attain a better position (Sørensen 1986). A *continuous state space model* allows us to do both (Petersen 1988, 1990, 1993). The model considers how earlier status attainment influences the likelihood of a person to make a job transition and simultaneously allows the job's duration to influence the status attainment of the following job. To enhance the respresentability of the analysis, two databases from the Netherlands and one from West Germany are used as replicates.

Very often women's labour market careers follow a non-sequential pattern; for instance, they drop out of the labour market because of their childcare responsibilities. Because of this, studies usually focus on the effects of childbearing on women's job status or how household duties determine female labour market exits (e.g. Dex 1990). As we concentrate on the size of the mother's and father's occupational status transfer throughout the duration of the career of her daughter, these aspects are not at the heart of the present study. The influence of the mother on her daughter's career opportunities and her chances to make a job transition have, until now, been widely neglected aspects.

5.2 Theory and Hypotheses

5.2.1 Intergenerational Status Transfer Revisited

Already three decades ago it has been empirically confirmed for men that the extent to which the occupation of the son depends on the empirical status of his father diminishes during the career of the son (Blau & Duncan 1967). The explanation is that the father is able to invest his social and economic resources only at the beginning of his son's career. After that, gradually, the father's influence declines because employers can increasingly consider the job incumbent's previous

on-the-job performance. The influence of social origin thus continuously erodes as the son's career proceeds. At the present stage, no reason exists to believe that the mother's influence on her daughter's labour market career would not unfold in a similar way. Therefore, we expect to find a similar mechanism regarding the effects of the mother's job status on her daughter's occupational career: the influence of the mother's occupational status declines during her daughter's career (*Background Erosion Hypothesis*).

Empirical studies point out that the status similarity between mothers and daughters is greater than between mothers and sons. At the same time, status similarity between fathers and sons is greater than between fathers and daughters (Aschaffenburg 1995, Khazzoom 1997, Korupp et al. 2000). Thus, status transfer is higher between same-sex parent-child dyads than between cross-sex parent-child dyads. Theoretically, this finding is explained by the fact that children attach 'expert-power' towards the same-sex parent, regarding their guidance in questions such as job careers, lifestyle, behaviour and the like, as essential for themselves (Acock 1984, Boyd 1989, Moen et al. 1997). Very likely, this same-sex orientation of daughters continues during the career of the daughter. Because of this we expect in the second instance that during the career of the daughter the relationship between the mother's and daughter's occupational status will decrease more slowly than between the father's and daughter's occupational status (*Sex-Role Hypothesis*).

Job orientation of children can sometimes go as far as to 'follow in the footsteps' of the parents, meaning that they start their occupational career with the same occupation as either their mother or father had held. In Chapter 4 it was found that, if the first occupation of the child is exactly the same as that of their same-sex parent, then clearly they have a lower occupational status than otherwise. The explanation is that job similarity with parents, when children enter their first job, is likely to appear mainly in low status positions. Usually, in order to fill high occupational status positions, for instance as a senior manager or professor, incumbents are required to have met the job requirements for the previous, but lower status position, to be admitted to the next occupational status level. Therefore, by definition, if at labour market entry the daughter's job is similar to either the mother's or the father's job, then this indicates a low status entry job. As the first job is crucial for the determination of career chances of children later on, a decision to start in the same occupation as one of the parents is also likely to affect children's occupational status negatively during their career. Moreover, possibly a personal dimension is added to the professional one in parent-child dyads with similar occupations. For children who initially 'stick' to their parents' job location, the job requirements are familiar and problems can be discussed within primary relationships. Such job properties may make children more reluctant to leave 'the home ground' and venture into new and unknown job locations. Based upon this, we pose that if the daughter chooses as her first job exactly the same occupational location as one of her parents, her occupational status and her likelihood to make a job transition will be negatively affected (*Adhesion Hypothesis*).

5.2.4 Historical Trends

It has often been argued, that modernization and educational expansion have increasingly offered occupational opportunities for intergenerational upward mobility. Both processes have reduced the strength of intergenerational status transfer by disrupting the influence of the parents on their children's career choices (Blau & Duncan 1967, Treiman 1970, Featherman et al. 1975, Treiman & Yip 1989, Erikson & Goldthorpe 1993, Wolbers 1998, Rijken 1999). The origin of this argument can be traced back to the idea that increased formal schooling encourages a person to train and develop their intellectual abilities independently of the social class into which they were born (Erikson & Goldthorpe 1993). Modernization leads to a progressive updating of employment under industrialisation. Over time, job requirements and profiles are adjusted, changed and further developed.

The theoretical assumptions about modernization and the educational expansion have been empirically confirmed by proving that the influence of the father's occupational level has decreased (Rijken 1999, Ganzeboom & Luijkx 1995). At first sight the influence of the mother supposedly follows a similar pattern. The hypothesis accordingly reads: through modernization and educational expansion every subsequent cohort experiences a decreasing influence of social origin, resulting in a diminishing influence of both the father's and mother's job status, on the occupational status of the daughter *(Modernization Hypothesis*).

Many mothers, though, have taken advantage of additional occupational opportunities offered in the last few decades (see Chapter 1). The increase of women's employment of all ages has been one of the most dynamic developments of the labour market during the past decennia. We can assume that as the mothers' employment rates are rising, so are their socioeconomic job resources. Thus, including the influence of the mother's occupation into the analysis leads to a variation of the 'Modernization Hypothesis': compared to the influence of the father, the influence of the mother's occupational status on her daughter's occupation has increased throughout time (*Transition Hypothesis*).

5.3 Data and Methods

The units of the analysis are female respondents who entered the labour market after finishing their formal education. Their entire careers, consisting of all job spells, are analysed up until the point of the interview, their labour market exit or their retirement. A job spell includes the starting and ending time of an occupation in century months and the associated occupational status of the job. Century months are the sum of months since the turn of the century in 1900. Jobs spells are sorted chronologically.

To make the respondents' backgrounds in the database more comparable, we confine our analysis to women who remain in the labour market or reach their retirement age. Any job spells that occur after an intermission of more than twenty-four months of occupational inactivity are

excluded from the analysis. This restriction is applied because previous research has shown that women who work intermittently usually return at lower pay and occupational status level than women who have continued their careers (Dex 1990, Blossfeld & Huinink 1991, Drobnic et al. 1999). Theoretically speaking, these women lose part of their human capital, because during their time away from the labour market they do not update their working skills and thus decrease their human capital (Osterloh & Oberholzer 1994). When reentering, they first have to reestablish themselves. Resulting from their decreased human capital, they have an occupational status position that is lower than their peer group that entered the labour market at the same time as they did but continued their working careers. These two groups of respondents are, therefore, not comparable.

When studying occupational careers, another possible source of bias can occur. It may be the case that some respondents reported some of their jobs they had done for pocket-money, while still in school, as their first occupation. This problem is resolved by controlling whether the month when the respondents finished their final exams, was before or the same as the one they entered their first occupation. Only job spells subsequent to final exams at school are included.

The data entail a measure of the mother's occupational status background and a dynamic measure of the respondent's occupational status. In many surveys either the mother's occupational background is neglected or the labour market career of the respondent is covered incompletely, e.g. by means of panel data. We have found complete sources of empirical information in three sets of data, two for the Netherlands and one for West Germany.

The two countries are used as replicates. To improve the stability of our results, the estimates are pooled. We control for the differences between countries and for changes over time in these countries by including an interaction effect between the birth cohort of the respondent and the country of origin. The Netherlands and West Germany are a particularly well matched pair for replication, because both have had a market economy in recent decades with a similar educational system and socioeconomic environment (Plantenga 1993, p.102ff.). Both the Netherlands and West Germany have a secondary education system with the three separate channels leading to lower, intermediate and higher status jobs. Lower and intermediate secondary education prepare the student for blue or white collar jobs, respectively. Higher secondary education prepares the student for university studies. In both countries, public childcare for employed mothers has been virtually non-existent throughout most of the century, resulting in high dropout rates of mothers after they gave birth to a child. Thus, the socioeconomic circumstances encountered by females on the West German and Dutch labour market have been much the same.

For the Netherlands, we use data from the "Households in the Netherlands 1995" (HIN95) survey and the "Netherlands Family Survey 1992-1993" (FAM93). Both surveys have a national stratified random sample design. For West Germany we use part of the German Life History Study (GLHS), a retrospective survey, including respondents of the cohorts 1929-31, 1939-41, 1949-51, 1954-56, and 1959-61. For the last 50 years of German history (1945-1989) the eastern and

western part of the country had different socioeconomic and political developments. During this period the Dutch and West German social and political systems have had more in common than the West and East German ones. Therefore, the East German part of the survey is excluded from the analysis.

Table 5.1 Ranges, Means and Standard Deviations of the Variables in the Analysis

Variable	Ranges	Means	SD
Cross-Sectional:			
First Occupational Status Daughter	1-9	4.37	1.57
Occupational Status Mother (Valid Entries)	1-9	3.80	1.47
Occupational Status Father	1-9	4.23	1.53
Mother Worked/Was Always a Homemaker	0/1	0.42	-.-
Father Present/No Father When Teenager	0/1	0.06	-.-
Education	6-19	11.080.	2.79
Not Married/Married	0/1	95	-.-
Birth Cohorts (1927-1965)	0-1	0.55	0.29
Germany/Netherlands	0/1	0.66	-.-
Years of Experience	0-47	11.19	7.71
Same Job/Different Job as Mother at First Job	0/1	0.07	-.-
Same Job/Different Job as Father at First Job	0/1	0.04	-.-
Number of Respondents:		*2475*	
Number of Spells:		*6426*	

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995; German Life History Study 1983, 1989.

The first survey of the GLHS contains life history information for the birth cohorts 1929-31, 1939-41, and 1949-51 and was completed in 1983 (Mayer & Brückner 1989). Information on two more cohorts was added in 1989, when respondents born between 1954-56 and between 1959-61 were surveyed (Brückner & Mayer 1995). In summary, this sample is a representative probability study with an explicit cohort design. The variables used in the analysis, their ranges, means and standard deviations are shown in Table 5.1. In our data, 66% are Dutch respondents and 34% are German respondents.

Except for the dummy variables, most of the other variables in the analysis have undergone recoding to simplify the interpretation of the results later. Mother's, father's and daughter's occupational status levels during their career were measured by the 'international socioeconomic

index' (ISEI), with a range between 10 and 90 points (Ganzeboom & Treiman 1996). In the analysis we divided the original scores by ten, to decrease the values of the interaction effects between the mother and the father's occupational status later in the analysis. The variables in the table can easily be constructed back to their original metric by multiplying their results by 10. The occupational status of the first job of the daughter exceeds that of both of her parents. Daughters have on average an occupational status score of 44 points, whereas mothers have, on average, only 38 points and fathers 42 points.

As we have information on both parents' occupational status, it is possible to compare job status outcomes of daughters whose parents both held an occupational title to those of daughters of families with only one parent in employment. Compared to families where both parents hold an occupational title, the size of parental status transfer must be lower in families where either (a) the mother is non-employed (by assumption, a homemaker) and the father the breadwinner or (b) the father is not present, due to his death or a divorce. The aim is to capture the effect of the 'missing value' for one parent's occupational title. To measure this, contrast variables are included to show the difference in the size of parental status transfer. Also, later on an interaction will be constructed between the mother's occupational status and the dummy variable for the absent father. This interaction will measure how the size of the mother's influence increases if the father was absent, given that the mother was employed. Of the 2475 respondents in the data set, 42% reported no occupational title for their mother, and we assume that these mothers were homemakers. Further on we describe how the percentage of homemaking mothers in the population changes over time. Of all the respondents, 6% report that their biological father has not been living with them when they were teenagers, because he was either deceased or had left the family for other reasons, for instance, divorce.

In Appendix A the measurements of the daughter's educational level are displayed, a trait which we control. The educational level of the daughter is translated into a year-proxy in our analysis which measures how long it approximately takes to acquire this level of schooling. Although both countries have similar educational systems, small differences still exist: for instance, completing the *gymnasium* in Germany usually takes 13 years, whereas the *voorbereidend wetenschappelijk onderwijs (vwo)*, the Dutch equivalent, requires only 12 years. The education of the daughter ranges between six and 19 years (see appendix A). On average, the respondents in the data set had 11 years of education. The parents' educational level is not included in the analysis. Previous studies have shown that this variable has a significant effect only on the child's educational attainment but not on the child's occupational status attainment (De Graaf & Luijkx 1992).

Another factor with an impact on the daughter's occupational status attainment is, of course, whether she was married (Dykstra & Fokkema 1998). The assumption is that married women are less obliged to aspire to a successful occupational career of their own. They have a breadwinner in the family, and role specialization of married couples makes it harder for wives to

commit themselves fully to their occupational career. Marital status is measured by a dummy variable that takes on the value of one, if the daughter was married before or during the current occupational spell. In Table 5.1 we see that 95% of the respondents became married over the course of their career but, of course, not all respondents were married during their entire career. As long as the respondent is not married before or during her current job spell, the value of this variable remains zero.

The birth cohort of the respondents originally ranged between 1927 and 1965, but are rescaled to range between zero and one to simplify the interpretation of the coefficients. For clarification, in any of the interactions formed later, the main effects refer to the oldest and the result of the interactions to the youngest cohort. Its mean value of 0.55 indicates that slightly more respondents of younger birth cohorts are included in the data.

The daughter's accumulated labour market experience is measured by the number of years spent in the labour market. Of course, she has zero years of labour market experience when she enters her first job. At the point of data collection the respondents have spent, on average, eleven years on the labour market, with a standard deviation of almost eight years.

At entry into the labour market, 7% of the daughters choose a job similar to their mother and 4% choose a job similar to their father (based on the first three digits of their occupational code). We also have calculated the number of years for the group of respondents who choose a similar occupation to either the mother or the father (table not shown). These daughters were either on average working nine years in a similar job as their mother or on average 11 years working in a similar job as their father.

5.3.1 Developments Over Time Regarding Jobs, Education and Marriage

In Table 5.2 the means and standard deviations of the respondents and parents' background variables are displayed for three broad cohorts, in order to show how they develop over time. The oldest cohort on average has the lowest entry job status, and the value increases for each of the subsequent cohorts. This so-called 'cohort effect' is usually ascribed to better job opportunities for entering labour market cohorts, due to higher education and better economic prospects encountered. For all cohorts we see that they have made the most progress regarding their job status after five years. Ten years later, their average occupational upward mobility has slowed down. Only the youngest cohort still displays a small increase of average occupational status.

Not only does occupational status increase over cohorts, the parents of these cohorts, naturally, also have a higher occupational status, the younger the daughter's birth cohort. Mothers in the oldest cohort have an average occupational status of 36 points. The mothers of the youngest cohort, in contrast, have an average occupational status score of almost 41 points. For fathers we notice a similar trend. Fathers in the oldest cohort have an average occupational status of 39 points, whereas fathers in the youngest cohort have an average job status of almost 46 points on the ISEI

scale.

The percentage of homemaking mothers decreases over time. In the oldest cohort we find 54% homemaking mothers, who neither held an occupational title when their daughter was a teenager nor before that. For the intermediate cohort this percentage decreases to 48% and in the youngest cohort to 28%. This evidence underlines that an increasing number of mothers take up paid employment.

Table 5.2 Means and Standard Deviations: Development Over Time

	Means (SD)		
	Cohort 1927-1941	Cohort 1942-1952	Cohort 1953-1965
Occupational Status Entry Job/10	3.79 (1.55)	4.49 (1.51)	4.83 (1.45)
Occupational Status After Five Years/10	4.89 (0.80)	5.08 (0.99)	4.97 (1.11)
Occupational Status After Ten Years/10	4.56 (1.20)	5.06 (1.04)	5.09 (1.29)
Mother's Occupational Status/10	3.62 (1.39)	3.64 (1.39)	4.08 (1.53)
Father's Occupational Status/10	3.95 (1.45)	4.15 (1.50)	4.56 (1.56)
Homemaking Mother	0.54	0.48	0.28
Education	10.09 (2.72)	11.21 (2.81)	12.12 (2.55)
Years of Marriage	25.28 (8.90)	16.72 (8.48)	9.89 (5.57)
Years of Experience	10.91 (9.64)	10.08 (7.19)	9.67 (5.00)
Age at Marriage	25.22 (7.45)	23.11 (4.89)	24.24 (4.16)
Average Number of Job Spells	2.46 (1.61)	2.78 (1.77)	2.58 (1.54)
Number of Respondents	843	727	905
Number of Spells	2073	2019	2334

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995; German Life History Study 1983,1989.

The years spent in education linearly increase throughout history. The oldest cohort has spent around 10 years, the intermediate cohort more than 11 and the oldest cohort of daughters about 12 years in education. Of course, the average number of years of marriage within cohorts decrease as we advance through time. On average, the oldest cohort of daughters has been married for 25 years, and this number decreases in the other two groups, with 17 years of marriage for the

intermediate and 10 years for the youngest cohort. The age at which they marry does not differ very much. Daughters usually get married when they are around 25, with one or two years difference between each group.

The number of job spells for each of these age groups is more or less similar. For all cohorts we see that they have an average of nearly two job spells per group. Small variations exist for the years they spent in the labour market, especially regarding the standard deviation of this variable. We see a larger standard deviation for the years spent in the labour market for the oldest cohort and a smaller one for the youngest cohort. Calculating the ratio of the years in the labour market by the average number of job spells for the three cohorts shows that daughters of older generations were slightly less likely to change their job than daughters of the younger generation.

5.3.2 Analytical Strategy

In a continuous state space hazard model, we study simultaneously the influence of social origin on the job status and on the mobility of respondents (Peterson 1988, 1990, 1993). Peterson proposes an efficient technique to model both components, the timing of the change and the achieved status. Rather than using only the discrete conditional status of, for instance, whether or not somebody is in the workforce, Peterson shows that the use of a continuous destination state does not pose too many difficulties. By doing so, one can take advantage of the fact that the continuous destination specific hazard rate is equal to the baseline hazard, times the probability of the destination state. He defines the model in the following way (Peterson 1990, p.252):

$$\lambda (t, y * H_{j-1}) = \lambda (t * H_{j-1}) \times g (y * T_j = t, H_{j-1}).$$

The left-hand side of the equation presents the destination-specific rate of transition, with t representing the realization of the time elapsed, y being the value of the new state entered, and H_{j-1} summarizing the entire history of the process from the origin to the destination state. The destination-specific rate of transitions equals the overall rate of transitions ($\lambda (t * H_{j-1})$) times the density of the destination state ($g (y * T_j = t, H_{j-1})$), represented on the right-hand side of the equation. Peterson suggests an explicit way of dealing with these two properties of the destination-specific rate of transition. If one is prepared to make the following assumptions, the estimation of the above formula becomes straightforward: first, the error terms of both the density function and the hazard rate are distributed independently and, second, both parameters are functionally disconnected. Under these assumptions, estimates are obtained by estimating the hazard rate, while ignoring the size of the changes, and estimating the density of the new status, after the change has taken place (Peterson 1988, p.146f.).

The hazard rate, that is the likelihood that an event will occur, estimates the daughter's chances to move out of her current and into her next occupation, under the condition that a move

has not yet taken place. The estimate of the baseline hazard rate is the overall probability to move to another condition. The rate or chance of a job transition is easily calculated through an exponentiation of the coefficient ($e^{coefficient}$). The time unit in our model is the number of years the daughter spent in the labour market prior to her move.

In the regression analysis we have to consider that for occupational statuses in people's careers the residual terms are heavily related, a problem labelled 'autocorrelation'. Of course, the previous job of an individual is related to her subsequent job, which in turn is related to the following job status, etc. To handle this problem, the standard errors of the regression analysis were estimated as 'robust standard errors', using a cluster adjusted or sandwich estimator, sometimes also called "White" or "Huber" estimator, available in *Stata*.[19] This estimator accounts and corrects for the fact that although there are 6426 numbers of observations we only have 2475 respondents (degrees of freedom). In the database all job spells of the daughter are sorted according to their occurrence over her career from the first to the last of her job spells.

The timing of the daughter's occupational transitions and her previous and subsequent occupational status locations are held constant in order not to overestimate the impact of social origin on her career chances. The resulting analysis simultaneously captures the outcomes of two career traits. First, the time spent in the previous job is assumed to influence the occupational status of the next job, and the occupational status of the previous job influences the likelihood of a job transition. Regarding the influence of social origin, the hazard estimation offers insights into how parental background affects the job mobility of the incumbent, that is their likelihood to move out of their current occupation. Secondly, the results of the regression analysis indicate how parents influence the occupational status of the daughter during her career.

5.4 Results

In Table 5.4 in the first column, the dependent variable is the hazard of the daughter for any sort of job transition. In the second column, the dependent variable is the daughter's occupational status throughout her career. The entire database consists of 6426 job spells. All the main effects of the mother's and the father's occupational status are placed in the upper part of the table.

The size of the father and the mother's main effects are significant, with 0.182 and 0.132, respectively. The father has a higher initial influence on the career of the daughter than the mother. This is similar to the result we found in Chapter 4. In the section labelled 'control variables' we observe that the influence of the daughter's educational level on her first occupational status is high (0.21). It decreases for every year of her labour market experience (0.210-0.007*years of experience). As expected, her previous occupational status is heavily related to her subsequent job status (0.469). However, counter to what was expected, whether or not the daughter was married

[19] I thank Jeroen Weesie for his statistical advice.

does not significantly affect her job status.

Also, for the oldest cohort of daughters, their occupational status was higher in the Netherlands than in West Germany. For the youngest cohort, indicated by the negative interaction between the country and the cohort, this relationship is reversed. Daughters of the oldest cohort had eight points more job status in the Netherlands than in Germany (0.827 * 10), whereas the youngest cohort of daughters in Germany had on average four points more occupational status than daughters in the Netherlands.[20]

5.4.1 Intergenerational Status Transfer

The'Background Erosion Hypothesis' holds that the influence of both parents decreases as the career of the daughter advances. The 'Background Erosion Hypothesis' and the 'Sex Role Hypothesis' both deal with how parents influence the occupational status during the career of the daughter. These developments are captured by an interaction effect between the mother's and the father's job status and the number of years the daughter has spent on the labour market. For the first entry job the daughter has, of course, zero years of labour market experience. For every subsequent job spell of the daughter the number of years she spends on the labour market increases. The interaction effect thus refers to the linear change of parental influence for every year the daughter remained on the labour market.

Only the effects of the father's occupational status significantly decrease over the period of the career of the daughter (-0.009 per year). The interaction for the mother is not significant. This means that over her daughter's career the decrease of the influence of the mother is not significantly different from zero. Her influence remains essentially stable. Thus, the 'Background Erosion Hypothesis' is accepted for the father but not for the mother. In the first column of Table 5.4 neither the mother's nor father's status background significantly affect the daughter's waiting time until she switches to her next job.

[20] The equation for the youngest cohort in the Netherlands is: 0.827-1.218=-0.391. Because the ISEI status scores of the respondents were divided by ten, we subsequently have to multiply this results by ten again, yielding a result of 3.91 ISEI points, thus roughly four points.

Table 5.4 The Influence of Parents on the Occupational Career of Their Daughter

	Daughter's Occupational Career	
	Hazard Rate: Job Transition	Cluster Adjusted Regression: Job Status
	Coefficients (Coefficient/S.E.)	Unst. Coefficients (T-Values)
Main Effects		
Mother's Occupational Status	0.015 (0.5)	0.132 (3.6)**
Father's Occupational Status	0.011 (0.5)	0.182 (6.0)**
Same Job as Mother at First Job	0.131 (1.5)	-0.025 (3.8)**
Same Job as Father at First Job	-0.310 (2.7)**	0.003 (0.4)
Mother is a Homemaker	0.010 (0.3)	-0.179 (4.6)**
No Father When Teenager	-0.059 (0.3)	-0.556 (3.1)**
Mother's Occupational Status* No Father	0.027 (0.6)	0.131 (3.0)**
Trends		
Mother's Occupational Status*Years of Experience	-0.001 (0.3)	0.002 (0.8)
Father's Occupational Status*Years of Experience	-0.004 (1.7)	-0.009 (4.1)**
Mother's Occupational Status*Birth Cohort	-0.028 (0.7)	-0.106 (2.0)*
Father's Occupational Status*Birth Cohort	0.048 (1.5)	-0.143 (3.2)**
Control Variables		
Education	0.014 (2.0)*	0.210 (21.5)**
Education*Years of Experience	-0.002 (0.1)	-0.007 (5.7)**
Previous Occupational Status	-0.030 (2.9)**	0.469 (25.7)**
[First Job Dummy]	-.-	0.048 (0.8)
Married	0.036 (0.7)	0.007 (0.1)
Netherlands	0.018 (0.3)	0.827 (10.5)**
Netherlands* Birth Cohort	-0.343 (2.8)**	-1.218 (7.7)**
Years of Experience	-0.086 (5.7)**	0.117 (7.8)**
Birth Cohort	0.452 (2.2)*	2.002 (7.8)**
No Job Transition/0-1 Years in Previous Job (Ref.)	-.-	0.0
Two Years in Previous Job	-.-	0.840 (2.1)*
Three Years in Previous Job	-.-	-0.133 (2.2)**
More than Three Years in Previous Job	-.-	0.002 (0.2)
Constant	-1.862 (12.5)**	-1.869 (10.0)**
Number of Persons in the Analysis	2475	2475
Number of Spells	6426	6426
Adjusted R Square	-.-	0.447

* = $p<0.05$; ** = $p<0.01$

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995; German Life History Study 1983,1989.

Next, we posed that during the career of the daughter the mother's influence would decrease more slowly than the influence of the father ('Sex Role Hypothesis'). The first job of the daughter is more highly related to the father's than to the mother's occupation. As the career of the daughter continues, these relationships are reversed. The mother's occupational status continues to influence the daughter's occupational status to an increasing degree. After approximately four and a half years, the influence of both parents is nearly the same.[21] Thus, gradually the mother and the daughter's occupations become more stronlgy related. Therefore, the 'Sex-Role Hypothesis' is confirmed.

The 'Adhesion Hypothesis' posed that, if the daughter started in her first job with an occupation similar to that of her mother or father, it negatively influenced her occupational career mobility. The 'Adhesion Hypothesis' does not deal with trend effects. For this hypothesis we have to measure the effects of job similarity of the daughter's first job with either the mother or the father's occupation. This aspect is captured by two dummy variables that take on the value 'one' if her first occupation is similar either to that of the mother or the father. The results in the table underline this expectation, regarding the daughter's occupational status, only for the mother/daughter dyad. The penalties for the daughter's occupational status are higher if she chooses a job similar to her mother than if she chooses a job similar to her father. In this case she has on average 0.3 (-0.025*10) points less occupational status than daughters who choose an occupational dissimilar to that of their mothers.

Being job-similar to the father decreases the likelihood of the daughter moving out of her current occupation (effects from column one, Table 5.4). Job similarity with the mother does not significantly affect the daughter's likelihood to make a job transition. The chances of a daughter who is job-similar to her father to move to another job are 0.73 times less (exp(-0.310)= 0.73) than the chances of a daughter who is job-dissimilar. The average transition rate of daughters who have a job dissimilar to that of their father is 1.36 times higher (1/exp(-0.310)). Therefore, the 'Adhesion Hypothesis' can be accepted for two conditions: job similarity between the mother and the daughter negatively affect the daughter's status location, whereas job similarity with the father negatively affect the daughter's likelihood to switch to another job.

5.4.2 Historical Trends

According to the 'Modernization Hypothesis', the influence of social origin on the status attainment of children decreases over time. These effects are measured by an interaction between parents' job status and the birth cohort of the daughter. Remember that the birth cohort of the daughter is rescaled to range between zero and one. Therefore the main effects of the mother's and the father's

[21] Parents' influence over the career of the daughter has developed after 4.5 years as follows:
1.79-(0.009*4.5) = 0.142 (Father).
1.32+(0.002*4.5)= 0.141 (Mother).

occupational statuses refer to their influence on the oldest cohort of daughters (born in 1927). The interaction effect refers to the total change of parental influence for the youngest cohort (born in 1965). The influence of both mother and father decrease throughout history (-0.106, respectively, -0.143). Therefore, the modernization hypothesis can be accepted for the influence of both of the parents.

The 'Transition Hypothesis' posed that, in comparison with the influence of the father's occupational status, the mother's occupational status has gained importance throughout history. Empirically we expect to find that over time the influence of the mother decreases less quickly than the influence of the father. At first sight the results in Table 5.4 suggest that this is the case, if we compare how strongly the influence of the mother's job
(-0.016) decreases to how strongly the influence of the father's job decreases (-0.0143). However when testing whether these two trend interactions significantly differ from each other, that is whether the one effect is stronger than the other, the test statistic yielded an insignificant result.[22] Thus, the 'Transition Hypothesis' is rejected on the basis of the empirical evidence.

5.4.3 Effects of the Reduction of Parental Status Transfer

For the case that either the mother is a homemaker or the father was not present in the family, due to divorce or death, we expected the status of the daughter to be lower than if there were two employed parents in the family. For the first part, we have to look at the size and the direction of the coefficient for homemaking mothers in row five. If the mother was a homemaker, it affects the occupational status of her daughter significantly negatively.

The size and direction of the variable 'no father when teenager' (row four) shows that daughters with an absent father are more likely to end in a lower status position compared to daughters from families where the father is present. The interaction effect between the dummy variable for an absent father and the mother's occupational status is significant. The mother's occupational status becomes more important in families where the father is absent, compared with two-parent families. Thus, mothers seem to take over the role of the father in families where the father is absent. However, whether or not the mother was a homemaker or the father was absent in the family, it had no influence on the likelihood of the daughter to make a job transition.

[22] F-test (1, 2475) = 0.23 (p = 0.63, not significant).

5.4.4 A Remark on the Importance of Social Origin for the Daughter's First Downward or Upward Move

In the above analysis it has become clear that parents mainly influence the status attainment of the daughter and, to a lesser degree, her chances to experience job transitions. If all job moves are compiled into a single analysis, it remains uncertain where the daughter has moved, upward or downward. It matters a great deal for individuals, though, whether they find themselves better or worse off after they have left their previous employment.

In the following analysis, therefore, we will take a closer look at the daughter's first job moves and distinguish an upward move from a downward move. The first downward or upward moves are chosen, because here the influence of the parents is stronger than for any of her following moves. Therefore, the last section of this study is geared towards an analysis of the influence of the parents on the daughter's first downward and first upward mobility. Table 5.5 shows the results of the two hazard models for the first downward and first upward move of the daughter. All the previous variables used in Table 5.4 are included, except the trend variables. In an analysis not shown here, we have also included trends over time, but mostly found them not to affect the job transitions of the daughter.

As we can see in Table 5.5., the best predictor of the daughter's job transition is her previous occupational status. Nevertheless, the mother's occupational status has a significantly negative influence on the daughter's chances to be downwardly mobile and father's occupational status enhances her chances to be upwardly mobile. It significantly increases the waiting time of the daughter to be upwardly mobile if her mother is a homemaker. We have seen in the previous analysis that throughout the career of the daughter there is a significant negative relationship between homemaking mothers and the occupational status of daughters. Apparently, daughters from homemaking mothers are doubly disadvantaged. Not only do they have a lower occupational status throughout their career (Table 5.4), they are also less likely to be upwardly mobile (Table 5.5). Let us now look at these two forms of occupational mobility successively.

The daughter's education and her previous occupational status influence her chances to make a downward move significantly, but both in contrasting directions. The higher the educational level of the daughter, the fewer chances she has to be downwardly mobile. The higher her occupational status, the *more* likely the daughter is to experience downward mobility. This latter result can be explained by a sort of 'reversed ceiling' effect, more likely a 'plateau' effect. The higher up one climbs in the occupational ladder, the easier it becomes to be downwardly mobile. Put differently, if one is working at the bottom of the occupational ladder, there is nowhere to fall. Simultaneously, the educational level and the previous occupational status are heavily related to the occupational status after she has experienced downward mobility.

Another example of a 'plateau' effect is the effect of the daughter's birth cohort. Earlier, in Table 5.3, we found that older cohorts compared to younger cohorts had, on average, a lower occupational status. As the overall occupational status of the oldest cohort is lower than for younger cohorts, we observe that the oldest cohort experiences downward mobility significantly less often than the youngest cohort. Younger birth cohorts, though, are more likely to experience downward mobility because they have an on average higher occupational status at labour market entry.

Let us now look at the results for the analysis on the daughter's upward mobility. Just as for the daughter's downward mobility, her upward mobility is mainly determined by her individual status attainment, her education, labour market experience and previous occupational status. Here most effects are reversed with respect to what we found for her downward mobility. Her education accelerates, whereas her previous occupational level restrains, her first upward mobility. Daughters working in high status positions have to wait longer to be upwardly mobile. This is called a 'ceiling effect' (Baxter 1996, Brüderl 1990). If one is already far up in the occupational status ladder, than climbing even further becomes more difficult. We also observe that the time the daughter has spent in the labour market is significant for making an upward move ('Years on the Labour Market'). Contrary to how it affects downward mobility, her years of experience have a negative effect on her chances to be upwardly mobile. The longer she has to wait to make an upward move, the more unlikely it becomes that she will be upwardly mobile.

A similar result was produced in the previous table (Table 5.4). In the second column, in the regression analysis, an interesting effect can be noted for the last three of the control variables ('two years in previous job', 'three years in previous job', 'more than three years in previous job'). If the waiting time in the previous job of the daughter is around two years, it increases the occupational status of her subsequent job by eight points. If her waiting time exceeds two years in her previous occupation, it results in a lower occupational status for her subsequent job. Upward mobility is connected to shorter waiting times in previous jobs.

In sum, this last explorative analysis yields several interesting relationships regarding the first occupational downward and upward mobility of the daughter. Foremost we notice that the best predictors are the daughter's own status achievements, especially her education, labour market experience, previous occupational status, but also her birth cohort. Nevertheless, mother's occupational status resources seemingly prevent the daughter from being downwardly mobile, whereas the father's occupational resources help the daughter to be upwardly mobile.

Table 5.5 *The Influence of Parents Job Status on Their Daughter's First Downward or First Upward Mobility*

	HAZARD RATE	
	First Downward Move	First Upward Move
Mother's Occupational Status	-0.072 (2.2)**	0.013 (0.4)
Father's Occupational Status	0.039 (1.5)	0.103 (4.1)**
Status Equal With Mother at First Job	0.204 (1.5)	0.102 (0.7)
Status Equal With Father at First Job	-0.208 (0.1)	-0.360 (1.9)
Mother is a Homemaker	-0.020 (0.2)	-0.185 (2.3)*
No Father When Teenager	-0.062 (0.1)	-0.475 (0.9)
Mother's Occ. Status* No Father	0.00 (0.0)	0.092 (0.7)
Control Variables		
Education	-0.113 (7.0)**	0.035 (2.1)*
Previous Occupational Status	0.238 (8.0)**	-0.388 (14.6)**
Years of Marriage	0.001 (1.3)	-0.008 (1.5)
The Netherlands	-0.073 (0.7)	0.185 (1.8)
Years on the Labour Market	0.003 (5.5)**	-0.003 (5.0)**
Birth Cohort	0.640 (2.7)**	0.162 (0.7)
Constant	-0.331 (12.4) **	-2.452 (10.0)**
Number of Cases	2475	2475
Number of Persons With Move	848	871

* = $p<0.05$; ** = $p<0.01$

Source: Netherlands Family Survey 1992-93; HIN 1995; German Life History Study 1983, 1989.

5.5 Conclusion and Discussion

In this chapter the effects of social origin, with emphasis on the mother's influence on the daughter's career are studied. The questions raised at the beginning of this chapter were how parents' occupational role models affect their daughter's career and how the influence of the mother and the father on their daughter's occupational status has developed over the recent decennia. First of all, to explain the daughter's occupational attainment the mother and the father's socioeconomic

backgrounds are both important. Yet, compared to her cross-sex orientation towards her father, the occupational same-sex orientation of the daughter towards the mother increases during her occupational career. Moreover, daughters' occupational status levels are negatively affected if they stick to their mother's occupations at labour market entry. Regarding the historical trend of the influence of social origin, the mother's and the father's influence on the daughter's occupational status both decreased in essentially a similar manner.

Although the father's job status has a higher impact than the mother's on the first occupational attainment of children, observed through a dynamic perspective this relationship reverses itself after some years. During the career of the daughter the father's influence vanishes, whereas the mother's influence remains at a higher level. This is an interesting result with respect to how the mother's status becomes more important for the career opportunities of her daughter, that is, in a dynamic perspective. The hypothesis of the eroding influence of parental background over the career of the daughter, therefore, is confirmed only for the father.

The established sex-role model in Chapter 4, the occupational orientation of the daughter towards the mother, becomes thus more pronounced as we follow the daughter from one job location to the next. Given that the relationship between the father's and the son's occupational status decreases (Blau & Duncan 1967, De Graaf & Luijkx 1992), and we here find that the relation between the daughter's and the mother's job status remains at the same level, it leaves us with only one interpretation. Daughters are more status-immobile relative to their mother's as compared to their father's occupational location.

Next we looked into the matter of how the occupational attainment of the daughter was affected if she chose a job similar to either the father's or the mother's. The 'Adhesion Hypothesis' stated that job similarity at labour market entry would affect the daughter's occupational mobility negatively, because she would be more reluctant to leave common ground and venture into unknown occupational territory. Only job similarity with the mother affected the daughter's occupational status negatively. The reasons for this difference can possibly be found in the extent to which men and women choose sex-typed occupations and how it affects their occupational status. In this chapter we have not included the sex-typing of jobs. Still, regarding the results of the previous chapter it can be assumed that job similarity towards the mother's occupation partly includes gender-specific job choices. Especially for women it was found that some serious career limitations are attached to gender specific job choices (Jacobs 1990, Huffman 1995). The status attainment of daughters who work in an occupation that is similar to that of their father's therefore may be less negatively affected than that of daughters who work in an occupation that is similar to that of their mother's.

Job similarity to the father rather than the mother inhibits the daughter from moving to another occupational location. Perhaps this outcome is related to the above found less pronounced negative consequences of daughters' job status locations in similar cross-sex job status

relationships. The father may be able to sustain his daughter in his job if he compares the daughter's occupational location to where she would have been had she chosen an occupation similar to that of her mother. However, this explanation is tentative and invites a follow-up study to compare the range of occupational status dissimilarity of parents and how it affects their daughter's occupational mobility.

The last question answered is how the influence of the parents has developed in recent decades, that is until daughters who were born in 1965 took up their labour market career. A decreasing link between social origin and individual status attainment has been assigned to the so-called modernization effect. The 'Modernization Hypothesis' is confirmed by our data. We observe a decrease of both parents' influence on the occupational status of their daughter. The decrease of parental influence is essentially the same for the father as for the mother, rejecting the idea posed by the 'Transfer Hypothesis', that the mother might have become a more important source of status transfer.

The latter conclusion contradicts earlier conclusions reached in Chapter 4. The differences between these two outcomes may simply be due to the fact that the observation window covered in Chapter 4 and 5 vary from each other. Perhaps the increase of the influence of mothers' occupational status resources, through increasing level of employment, has only recently started to change trends in occupational reproduction. We need more recent empirical data in order to test this expectation.

Moreover, having only one parent at home who is gainfully employed has the expected negative consequences for daughters' status attainment. We tested this for the influence of homemaking mothers and for the case where the father was absent. For both cases we expected the reduced socioeconomic resources within the family to have negative consequences for the occupational status of the daughter. If the mother was a homemaker, this disadvantaged her daughter's occupational attainment. Not only did homemakers have a negative influence on the occupational status of the daughter, daughters of homemakers also took longer to make their first upward move.

Also, in families where the father was absent during the teenage years of the daughter, daughters had a lower occupational attainment than daughters from two-parent families. Yet, part of this effect is counterbalanced by the influence of the occupation of the single mother. Mothers in families without a father have an influence on the occupational status of the daughter that is as strong as that of fathers in two-parent families. The conclusion here is that resource transfer is cumulative in families with two employed parents.

A last exploratory analysis on the influence of the parents on the daughter's first downward or upward move showed that the influence of the parents unfolds mainly towards the occupational status of the daughter. They are not so important for the timing of her job transitions. Still, mother's and father's status resources seemingly influence initial job transitions of the daughter. The mother's

status resources appeared to be primarily influential on preventing the daughter from being downwardly mobile, whereas the father's status resources help the daughter to be upwardly mobile. A tentative explanation may be that the mother's influence unfolds when status preservation is called for, whereas the father's resources are active when supporting the enhancement of status. These newly discovered patterns call for a more theory-guided approach.

The best predictors for the further development of her career are the daughter's own earlier career achievement. Regarding the downward and upward mobility of the daughter we can conclude that her social origin determines her likelihood to be mobile to a minor degree. Primarily, though, her own achievement prior to her move can best be used to predict her occupational mobility.

The present research has left some open questions. Above we have already made assumptions about the connection between intergenerational job similarity, occupational sex-typing and how they mutually may influence each other. This assumption could be tested by including the sex-typing of the occupation in the analysis. The interrelationship between parental and children's occupational sex-typing and status levels have not been studied in a dynamic analysis, but may explain some counter-mobility of daughters. Another problem is that we have restricted our analysis to two countries. Especially in view of the increasing influence of the mother's occupational status a replication in an international perspective with a more recent time window is worthwhile.

Chapter 6 The Mother's Influence: A Challenge to the Basic Framework?

6.1 Introduction

This has been a study on the importance of the mother's status background for all levels of her children's status attainment. The overarching research question answered is how the mother's education and occupation influence her children's educational and occupational status. In other words, how do the results of the classical model of status attainment change if the influence of the mother's status background is added to the influence of the father's socioeconomic status? In the first chapter the questions about the modes of the mother's socioeconomic status transfer on her children's status attainment were specified in section 1.5 as the following:

(1) How strong is the influence of the mother's status on her children's status attainment?

(2) How does the mother's influence, relative to the father, affect her children's status attainment?

(3) Does the mother's status background have a stronger impact on her daughter's status attainment, relative to her son's?

(4) How has the mother's influence on her children's status attainment changed over time, relative to the father's?

The empirical chapters of this book follow the chronological sequence of the classical model of status attainment (Blau & Duncan 1967), as to when the events of status attainment occur in the life cycle of children: their educational attainment, their first occupational status and then, subsequently, the occupational status attainment during their career. For a short summary of the contents of the empirical chapters, I refer the reader to their respective introductory abstracts.

In Table 6.1. the specific research questions anwered in the empirical chapters, Chapters 2 to 5, are shown and in how far they also entail an anwer to the above four main research questions. Except for Chapter 3 all four questions are answered in Chapter 2, 4 and 5. The left-hand side of Table 6.1 lists the specific research questions of the chapters. On the right hand side, it shows which of the main research questions are answered in which of the chapters.

Table 6.1 Research Questions Answered in Chapter 2 to 5

Chapter No.	Specific Research Questions in Chapter 2 to 5	Answers to Main Questions			
		(1)	(2)	(3)	(4)
2	(a) What is the most appropriate model to study how mother's, in relation to father's socioeconomic status has influenced children's educational attainment over the recent decades? (b) How do conclusions about less educational reproduction change if, in addition to the father, the influence of the mother's socioeconomic status is also considered?	X	X	X	X
3	(a) How strong do the time restrictions, caused by the mother's employment, and her occupational resources influence children's educational attainment?	X	X		
4	(a) How does the status and sex-typing of the mother's, in relation to the father's occupation influence the status and sex-typing of the occupations of daughters and sons? (b) How have these relationships changed over time?	X	X	X	X
5	(a) How do parents' role models affect the occupational career of the daughter? (b) How has the influence of the mother's occupation, compared to that of the father's, developed throughout historical time?	X	X	X	X

In this final chapter, the conclusions regarding the influence of the mother are drawn with regard to the main research questions of this study. This is done first for the specific levels of children's status attainment (section 6.2.1 to 6.2.3) and subsequently for the specific role of homemaking mothers (section 6.2.4). Thereafter, in the main conclusions (section 6.3), the above four main questions are discussed regarding the influence of the mother on the entire process of children's status attainment. I will conclude with an outlook on interesting future research areas (section 6.4).

6.2 Placing the Mother into the Classical Model of Status Attainment

6.2.1 Mother's Influence on Children's Education

Chapter 2 and 3 both contain studies on how the mother's socioeconomic background influences the educational level of her child. The first task was to establish how to measure the influence of social origin on the status attainment of children correctly. Based on the observation that husbands and wives essentially have a similar educational and occupational level (see Chapter 1), the assumption was that both parents are important to estimate the total of status transfer from one generation to the next. In Chapter 2, if we allow the influence of the mother in addition to the father to contribute to the explanation of children's education in our models, the extent of the total of parental status transfer substantially increases. Models that do not consider both parents' importance for the educational attainment of children turn a blind eye to the supplementary mode of parental resource transfer.

It cannot be maintained that, by default, the mother's status background has a lower impact on her children's educational attainment than the father's status background. The main mechanism by which educational reproduction takes place is the concept of status dominance, which can apply to *either* the mother *or* the father. However, because of the supplementary mode of status transfer, the inclusion of the non-dominant parent's background is important. This has been shown in the Modified Dominance Model.[23] This newly designed concept recommends itself as the best measure for the influence of social origin on children's educational attainment.

Except for Chapter 3, in most of the study I have made a point of analysing the importance of children's sex-role identification to explain differences in the extent of status transfer between the mother and the father onto daughters and sons. Previous studies have suggested that the influence of the mother on her daughter's education were stronger than on her son's education (Treiman & Terell 1975, Peschar 1987, Miller & Hayes 1990, Crook 1995). Therefore, one expectation was that the sex-role model may apply to the process of educational reproduction. In the second chapter the empirical evidence suggested otherwise, the differences found between the father's and the mother's extent of status transfer were statistically not significant. The same-sex parent's education and occupational status impact is comparable to the influence to the cross-sex parent's status background. The sex-role model is not an applicable theoretical framework for the explanation of the children's educational attainment.

Altogether, parents' education explains more of the variance of children's education than parents' occupational status (see Chapter 2). Due to increasing average level of women's education and employment, the assumption was made that mothers' resources are growing. The expectation

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[23] The model's name originates from the concept of the dominance or power model, where only the higher status parent is thought to be important for the status attainment of the child (see Erikson 1984). The improvement is that the Modified Dominance Model includes the influence of the lower status parent.

was that, compared to the father, recently the weight of the mother's influence on the process of stratification may have increased. Yet, at least regarding the educational attainment of children, the results have suggested otherwise. The influence of both parents has decreased in a similar way, assumingly caused by the process of modernization (see Erikson & Goldthorpe 1992, Rijken 1999). The over time decreasing importance of social origin on children's educational attainment is probably due to increased chances and encouragement of people from the lower social stratum to participate in the educational system (Treiman & Yip 1989). Educational politics in industrialized countries is geared towards increasing equality of educational opportunity and has intervened in the impact of parents on the educational career of their children. Regarding the educational attainment level of children, the current study has replicated the result that the father's influence is steadily decreasing, as is the influence of the mother.

Despite the above conclusion that the Modified Dominance Model best describes the influence of the mother and the father on children's education, the basic model used in the remaining chapters is the 'Individual' one. The Individual Model captures the importance of social origin separately for the mother and the father. Using the Individual Model throughout all chapters has given me the possibility to compare the weight of the mother's influence to that of the father. *Ceteris paribus*, considering both parents' influence is invariably superior to including only one of the parent's influence for the study of children's status attainment. Historical trends of educational reproduction cannot be modelled well with the Individual Model, because collinearity between the influence of mother's and father's socioeconomic background distort the results. However, the research problem in Chapter 3 does not entail a trend analysis. What needs to be done is a model comparison as carried out in Chapter 2 for the occupational status attainment of children. Thus the best model of how parents influence occupational reproduction is still unknown. Indeed, the results in Chapter4 and 5 on trends in occupational reproduction suggest that the sex-role model may be the most appropriate to study children's occupational attainment levels.

It would have been an incomplete picture if the analysis had remained at a distant level and merely observed how the influence of the mother on the education of her children develops historically. Therefore, in Chapter 3 the educational attainment of children is explained by contrasting the *time budget argument* with the *resource argument*. The distribution of care in a household with children continues to be unequal, with the mother taking on the main share of it. When focussing on the 'competing demands' of employed mothers, we notice that the decreased time employed mothers spend with young children does not imply any deficits in the educational location of children. Yet, neither does the mother's continued labour market participation significantly enhance children's educational attainment. The results produced in Chapter 3 show that only if the mother

works at a low occupational status level when her child is about to make its transition into secondary education, does her child have a lower educational level than a child from a homemaking mother. Clearly, the traditional measures of status background, mother's education and her occupational status, predict the educational outcome of her children better than maternal time budget measures. The educational level of children is thus mainly affected by the mother's occupational status and educational level, not by the time restriction attached to her employment. This result is reassuring in the sense that we do not underestimate the influence of the mother on children's education, if we do not consider her time budget.

On the other hand, the outcomes of Chapter 3 also entail a point for discussion. If mothers work at a low occupational status level, this may suggest that due to the family's socioeconomic circumstances she has been forced to take up paid employment. Possibly, the employment of the mother at a low status level is a sign of socioeconomic deprivation in the family. Regarding this issue, a working hypothesis for further research may be that the lacking socioeconomic resources in the family resulting, for instance, in the mother's employment at a low status level influence children's educational attainment negatively.

6.2.2 Mother's Influence on Children's First Occupational Status

In the fourth chapter the classical status attainment level is extended to include the influence of occupational sex-typing, because of the empirically established negative relation between these two job traits (e.g. Faber 1988, Jacobs & Steinberg 1995). The focus is on whether, besides the influence of occupational status, parents' occupational sex-typing is a second mode of status transfer from one generation to the next. In the Netherlands, when children first enter the labour market, the father's occupation is more important for his son's than for his daughter's occupational status. The mother's occupation is important *only* for the occupational location of her daughter and not for her son.

A central question of Chapter 4 is how the historical trends of the mother's and the father's occupational influence have developed for the first occupational attainment of sons and daughters. Although in the past the father's influence has been larger than mother's for both son's and daughter's first occupational status, over time a marked decrease has taken place in the father's influence on the daughter's first occupational attainment. The mother's influence on her son's occupation remains insignificant. Nonetheless, over time we are witnessing an increase of the relative weight of the mother's influence (relative to the father) for the first occupational location of daughters.

Therefore, for the level of the children's first occupational status attainment the importance of the sex-role identification model was confirmed. As mentioned, the influence of the father's occupation is stronger on the son's than on the daughter's occupation, whereas the mother's occupation has a stronger impact on the daughter's than on the son's occupation. Thus, it appears

that children's first occupational choices are related to that of their same-sex parent.

As occupational sex-typing influences the occupational status attainment of women more negatively than men's, this job characteristic was expected to be important for studying the influence of the mother's occupational status on her children's occupational status. Splitting job traits into these two separate dimensions yields some interesting results.

However, although over time occupational sex-typing increasingly has negative consequences on the occupational status of the daughters, the influence of the parental occupational sex-typing on the occupational sex-typing of both sons and daughters remains stable over time. Compared with the influence of the parents' occupational sex-typing, the importance of parental occupational status for the process of status attainment is far higher. Consequently, the more elementary classical model of status attainment is not invalidated by the inclusion of occupational sex-typing into the model.

6.2.3 Mother's Influence on Her Daughter's Occupational Career

The results in Chapter 4 emphasize the importance of the sex-role identification model for the occupational attainment of children. Therefore, the dynamic analysis of mothers' influence on children's careers (Chapter 5) is narrowed down to daughters. Previous male-based research has established that the father's occupational status affects the sons' careers. In short, the results of Chapter 5 suggest that the same it true for mothers and daughters. The mother's occupational status is important for the explanation of her daughter's occupational career.

For the occupational career of the daughter, we tested whether the mother's influence was a stronger determinant of her daughter's occupational status than the father's impact. Empirical studies have shown that sons gradually move away from their father's occupational location as their occupational career continues (Blau & Duncan 1967, De Graaf & Luijkx 1992). In Chapter 5 we can see that the father has a higher initial influence on the first occupation of the daughter than the mother. However, differences exist regarding how the mother's and the father's influence develop over the career of daughters. During the career of the daughter the father's influence vanishes, whereas the mother's influence remains at the same level. Thus, compared to sons, daughters are more status immobile and their immobility is connected to their mother's, not their father's occupational status. This evidence suggests that the sex-role identification model is an applicable framework for understanding occupational reproduction in mother-daughter dyads.

Moreover, if the first occupation of the daughter is similar to that of her mother's, it affects the occupational status of the daughter negatively. Given that usually we find the mother's average job status to be lower than the father's job status, an obvious explanation exists for this relationship. Yet the real disadvantages of this choice become manifest in a dynamic perspective, because the negative consequences do not diminish as the career of the daughter advances.

In Chapter 5 I tested how the influence of the mother, in relation to that of the father,

develops over historical time. We see that not only in educational but also in the occupational attainment of children the influence of the mother and the father diminishes throughout history. These results underline the modernization hypothesis that assumes that industrialization promotes achievement and reduces ascription. Over time, the occupational attainment of daughters is becoming less determined by their social origin, represented by their father's and their mother's occupational status.

An additional close-up snapshot of two singular job transitions, the first downward and the first upward move of the daughter after her entry into the labour market, has yielded another interesting difference between the mother's and the father's influence. Father's status resources have a positive influence on the daughter's upward mobility. Mother's status resources are mainly important for protecting the daughter from downward mobility. The explanation offered regarding this outcome is that the mother's influence may be status preserving, whereas the father's influence may be status enhancing. The latter results, though, were extracted by exploration and still await a more theoretical approach. Regarding the likelihood of the daughter's job transitions, it cannot pass unmentioned that the most important determinants are the levels of her own status achievement (i.e. education, previous job status) prior to her transition, and not the influence of the mother's occupational status.

6.2.4 Reflections: The Influence of Homemaking Mothers

As homemakers are included in all of the previous empirical chapters, some answers can be offered on how they affect the process of status attainment. Mothers working as homemakers have always posed a special challenge for the inclusion of the mother's influence into the analysis on social inequality. Although some work has been devoted to this problem (Bose 1975, 1986), it remains unclear what the actual socioeconomic location of a homemaker is. In this study an attempt is made to understand the position of homemaking mothers in the process of stratification. Therefore they are treated as a unique group, by isolating their effects from mothers who have held, at least at some point, an occupational title.

A homemaking mother's main status resource is, according to stratification research, her own education. We found that the education of a homemaker is more important for the educational attainment of children than the education of an employed mother (Chapter 2). This ought to be considered in future studies on the educational attainment of children, especially as women spend more and more years on formal education. Compared to working mothers, though, children of mothers who always were homemakers have on average an educational level below those of children from employed mothers. Partly this result can be explained by the on average lower educational level of mothers who always have been homemakers. The only exception found was the case that the mother was working in a low status occupation when the child is about to make its transition into secondary education (Chapter 3). The most straightforward explanation is given in

Chapter 3, where the *resource argument* is reformulated as a *lacking resource argument*. This means that if the mother altogether lacks of socioeconomic job resources, then if she were never gainfully employed, continues to work, or reenters at a low occupational status level after childbirth, her child is better off with a mother who is a homemaker. Otherwise, compared to children of mothers who always have been a homemaker, children from gainfully employed mothers have a higher educational attainment (see also Dronkers 1992).

Additional research could focus on the interrelation between the strong influence of homemaking mothers' education on the one hand and their nonexistent occupational resources on the other hand. Today's reality is that mainly mothers with a low educational level stay home and take care of their family. Higher educated mothers are likely to continue their employment after childbirth (CBS 1994). An additional point of discussion is how the mother's status as a homemaker interacts with the father's occupational status. A homemaker's effects on her child's education may be entirely dependent on the level of the family's socioeconomic resources, which in the case of a breadwinner-model, are completely determined by the father's job.

Homemaking mothers also affect the first occupational attainment of the younger sons and older generation of daughters negatively (Chapter 4). The explanation for this result may be twofold and related to the strong family orientation of a homemaking mother. On the one hand, the homemaking mothers may have been more of a role model within older, compared to younger generations of daughters. The subtle message conveyed to the daughter was that they ought not to invest too much energy in their working career, leading them to have fewer career aspirations. As over time the role of a homemaking mother decreased in significance, younger generations of daughters may have looked less favourably on the role of their homemaking mother. Sons of the older generation, on the other hand, were much less perceptive towards the family orientation of their homemaking mother. Strictly speaking, employment and career orientations, not family care, were and are the defined roles for men. Perhaps for the younger generation of sons their defined sex role has become less restricted. Therefore they may be more perceptive to the family orientation they have experienced through their homemaking mother and therefore cut back their career aspirations. These explanations are tentative and require further study.

In Chapter 5, we see that the daughter receives more occupational status benefits if both her parents are employed, compared to the case where only the father works and the mother is a homemaker. In effect, having a homemaking mother negatively influences the daughter's occupational status and decreases her likelihood to be upwardly mobile. Over the last decades, though, the number of mothers who remain at home to take care of their family and children has been continuously decreasing.

6.3 Main Conclusions

This study has shown that the mother's socioeconomic background is an important trait for the explanation of children's status attainment. Many hypotheses on the father's status transfer are reformulated to include the mother's status transfer as well. At the educational level of children's status attainment the influence of the mother is similar to that of the father, whereas at the occupational level profound differences emerge.

The first question is how strongly the mother's socioeconomic background influences her children's status attainment. Adding the influence of the mother to the classical model of status attainment showed that the main conclusions of stratification research have to be altered regarding the total extent of the impact of social origin. Mother's are as important as father's for the explanation of children's educational attainment. Over the last decades the mother's socioeconomic resources have been an important additional source for the transfer of status advantages from one generation to the next. The impact of social origin on the education of children increasingly plays a role via the education of both parents and decreasingly via their occupational status. Yet the occupational resources of the mother are important for the educational attainment level of sons and daughters and for the occupational attainment level of daughters. Considering that the average educational and occupational level of women is increasing (Chapter 1), it is likely that future studies which neglect the influence of mother's status background will become increasingly biased.

The second question, how the mother's influence matters in relation to the father, has to be answered separately for the educational and occupational attainment level of the children. The mother's influence on her children's educational attainment is as large as the father's influence. The mother's influence on her children's first occupational attainment is less than that of the father's. In fact, she affects only her daughter's and not her son's occupational attainment. Later in the daughter's career, the mother's influence becomes stronger than the father's influence on her daughter's occupational status attainment. Another important difference in how the mother and the father influence the education and occupational status of their children is the *mode* by which status resources are transferred. Within educational reproduction the *Modified Dominance Approach* is the model which best captures the influence of both the mother and the father. The *Dominance Model*, from which this approach is derived, holds that the parent with the highest status determines the socioeconomic resources of the family. Although the logic behind the idea of status 'dominance' is appropriate, the rigidity of its application is incorrect. Both parents' resources are important and supplement each other in the process of educational reproduction. The mode for occupational reproduction is different. For sons' occupational reproduction, the main mode of mother's and father's status transfer is not supplemental, as mother's seemingly do not affect the occupational status attainment of their sons.

The third question is on the importance of the sex-role model for all levels of children's status attainment. The way the mother influences her children's educational level shows no patterns of a sex-role model, whereas for occupational reproduction we find indications for the existence of such a model. The mother's occupational status is important only for her daughters' but not for her son's occupational attainment. The father's job status is more important for the first occupation of his son than of his daughter. This same-sex role model holds not only for the first occupation of children, but also unfolds over their career as a significant pattern. Daughters have a growing occupational orientation towards the mother, as their careers continue. Starting from when the daughter enters the labour market, within a couple of years the influence of the mother on the occupational career of the daughter exceeds that of the father. For most daughters it holds that their occupational location remains essentially linked to their mother's occupational status. The explanation that children infer their same-sex parent to have expert knowledge on questions regarding lifestyle, career opportunities and the like, suggests that we may be dealing with a male (fathers and sons) and a female (mothers and daughters) mobility regime, regarding occupational reproduction.

Usually mobility studies do not explicitly focus on the first occupational location of children. In these cases, studies show that the influence of the mother and the father are of equal importance (Aschaffenburg 1995, Khazzoom 1997). The influence of the mother was reported to be lower than the influence of the father for the first occupational attainment of the daughter. After four and a half years, the mother and the father have essentially the same influence on the occupational status attainment of the daughter, and thereafter the mother gradually becomes more important. The explanation for the contradiction between the results of earlier studies and the current results is therefore straightforward. The later the size of intergenerational status transfer is calculated during the daughter's career, the more important the mother's status attainment has become for her daughter's occupational status.

The fourth question focuses on how the influence of the mother has developed *over time*, that is over recent decades, in relation to the father. Essentially, over the years, the mother's influence has decreased in a similar way to the father's influence on the educational levels of children. However, a contradicting result appears on the influence of the parents' occupation on children's occupations over historical time. Only the influence of the father, not the mother on the occupational attainment of the daughter was found to decrease over the years. This result has led to the conclusion that in relation to the father the importance of the mother's occupational status for the first occupational attainment of her daughter has been increasing. On the other hand, it can be concluded that the mother's and the father's influence within occupational reproduction has been essentially the same. Here the result suggests that the mother's job status is becoming less important for the occupational attainment of her daughter.

For an explanation regarding these contradictory results we have to keep in mind the

differences in the observed time window of Chapter 4 and 5. The results obtained in Chapter 5 cover an empirical time window for cohorts of daughters born between 1927 and 1965, whereas Chapter 4 covers a period of birth cohorts between 1927 and 1975. We know that educational and occupational status attainment levels of persons are positively related (Chapter 4 and 5). If the educational expansion started during the late fifties, beginning of the sixties, then the first women affected by the educational expansion started to enter the labour market, got married and became mothers, approximately 15 to 20 years later, depending on their level of education. In Chapter 4 the observations include mothers of daughters who were born between 1965 and 1975, whereas in Chapter 5 the cutting line is 1965. Perhaps the years between 1960 and 1975 are the crucial additional years from where on it becomes possible to measure the increase of the mother's influence on her daughter's occupational attainment because of the mother's growing occupational resources. Studies that find a decreasing influence of social origin are mostly based on older data. Possibly we are witnessing a reversal in trends on occupational status reproduction for the most recent decade. A replication of this research with more recent data will show whether we came across a chance finding in Chapter 4.

Table 6.2 Modes of Mother's Status Transfer

	Children's		Question
	Education	Occupation	
Mother's Status Influences the Status Attainment of...	Sons and Daughters	Daughters	(1)
Mother's Education	Dominance Orientation	0	(2), (3)
Mother's Occupation	Dominance Orientation	Sex-Role Orientation	(2), (3)
Historical Trends	-	-	(4)

6.4 Suggestions for Further Research

One problem encountered during the preparations of this book was the surprising lack of data covering the occupational status of the mother. The mother's occupational level was often routinely excluded in large, nationwide surveys. The analytical results of this study show that this custom has led to an underestimation of the total of parental status transfer. It is time to consider the mother's influence as seriously as the father's in studies on social inequality. Although costly, setting up a separate project to gather and store information on the mother's socioeconomic background worldwide may be possible (e.g. in the ISMF). Of course, this project would take some time to carry out, but definitely be worthwhile.

Educational contexts or specializations were not considered in this study but are crucial elements of the child's later occupational orientation. Perhaps the educational *specialization* of children shows more of a sex-role orientation than their level of educational attainment. This idea has not been followed up in the present study but might be worthwhile investigating.

I can only speculate about the reason why the gender composition in jobs over time has resulted in higher penalties for daughters working in female sex-typed jobs (as opposed to sons working in male sex-typed jobs, see Chapter 4). Possibly gender-role specialization in jobs has received decreasing rewards in a labour market that emphasises the flexibility and employability of the workforce. If this is the case, one conclusion may be that perhaps the female workforce is more resilient in giving up the gender stereotypes related to job functions. Consequently, the punishments or decreasing rewards, for working in a female sex-typed occupation may more strongly affect women's job statuses, compared to men's. Another interpretation is possible, too. Many female sex-typed jobs, for instance, clerical or sales jobs, have a high percentage of part-time working women. For many mothers part-time employment is a preferred strategy to combine family and employment obligations. Possibly the increase of women's part-time working commitments in female sex-typed job is related to the decrease of occupational status of female sex-typed occupations that we are witnessing lately.

A challenge for future research is the finding that the mother's influence, in relation to the father's, has possibly increased recently. It suggests that for younger generations of daughters the influence of the mother may be as important as the influence of their father for their occupational attainment. Perhaps it is also an indication of the fact that the occupational status resources the mother is able to transfer to her daughter have been increasing during the last decades. The conclusions of the current study are based on empirical results found for either the Netherlands (Chapter 4) or the Netherlands and Germany (Chapter 5). Regarding this, I recommend a replication of these studies using an internationally comparative database and a more recent time window.

I did not include former socialist countries in the study. Returning to Chapter 5 of this book, a hypothesis contradicting the modernization hypothesis would be the 'Elite Hypothesis' as posed by Sorokin (1927), going back to an idea of Pareto (1901) at the beginning of this century. He posed that after a change on the macro level (society) takes place, old elites lose their positions and new elites install themselves in their place. After that, the ranks close and social inequality increases again. Regarding former socialist countries, it would have been interesting to follow up on this idea with respect to the influence of the mother. After the breakdown of socialism, one could possibly study this at two points in time. First, following the installation of socialist regimes in many Eastern European countries, many women were encouraged to join the labour market and some of them were able to reach important positions. Did these mothers use their status background to the advantage of their children? Secondly, after the breakdown of socialism, many old elites were

overthrown and new groups filled the vacancies they left behind. Does the periodic effect display itself in the historical trend of the mother and the father's influence? Was the influence of the mother higher during the socialist period? Do mothers invest more in their children's career than fathers, when socialist norms turned against them? How did reinstallation of socialist regimes influence the mother's status transfer? The challenge to find an answer to these questions must be left to future studies.

Appendix A Coding of the Educational Level in the Netherlands, West Germany and USA

Years	The Netherlands (FAM 1993; HIN 1995)	West Germany (GLHS 1983, 1989)	USA (NSFH 1988)
6	lager onderwijs	Volksschule ohne Abschluß	Years of Formal Schooling
8		Volksschule ohne Abschluß mit Lehre	
9	lager beroepsonderwijs	Hauptschulabschluß ohne Lehre	
10	middelbaar voortgezet onderwijs	Mittlere Reife ohne Lehre	
11	hoger voortgezet onderwijs	Hauptschulabschluß mit Lehre	
12	voorbereidend wetenschappelijk onderwijs	Mittlere Reife mit Lehre	High School Equivalency Test (GED)
13	middelbaar beroepsonderwijs	Fachhochschulreife/ Abitur ohne Lehre	Years of Formal Schooling
14	hoger beroepsonderwijs	Fachhochschulreife/ Abitur mit Lehre	
17	doctoraal	Fachhochschulabschluß	
19	staatsexamen en promotie	Universitätsabschluß	

Appendix B Data Sources

Centraal Bureau voor de Statistiek. 1993 & 1996. *Enquête Beroepsbevolking*. [machine readable dataset]. Heerlen/Voorburg: CBS.

Ganzeboom, H.B.G., Treiman, J. 1999. *International Stratification and Mobility File* [machine readable datafile]. Utrecht: Research School ICS; Los Angeles: Institute for Social Science Research. Most recent version: 1999. Information: http://www.fss.uu.nl/soc/hg/ismf.

Mayer, K.U. 1983 [principal investigator]. *Lebensverläufe und Wohlfahrtsentwicklung*. [TDA archive file]. Berlin: Max Planck Institut für Bildungsforschung.

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Weesie, J., Kalmijn, M. Bernasco, W., Giesen, D. 1995 [pricipal investigators]. *Huishoudens in Nederland 1995*. [SPSS-export file]. Utrecht, Netherlands: Department of Sociology (ICS/PIONIER), Utrecht University. Codebook prepared by M. Kalmijn, W. Bernasco, J. Weesie.

Appendix C Abbreviations Used in Chapter 2

Variablename	Explanation
MED	Mother's Education
MIS	Mother's Occupational ISEI Score
FED	Father's Education
FIS	Father's Occupational ISEI Score
HS_ED	Higher Status Parent's Education
HS_IS	Higher Status Parent's Occupational ISEI Score
LS_ED	Lower Status Parent's Education
LS_IS	Lower Status Parent's Occupational ISEI Score
FED=MED	Effects of Both Parents' Education are Constrained to be Equal
FIS=MIS	Effects of Both Parents' Occupation are Constrained to be Equal
SS_ED	Same-Sex Parent's Education
SS_IS	Same-Sex Parent's Occupational ISEI Score
DS_ED	Cross-Sex Parent's Education
DS_IS	Cross-Sex Parent's Occupational ISEI Score

Appendix D Correlation Matrices used in Chapter 4

(η_1)	(η_2)	(η_3)	(η_4)	(η_5)	(η_6)	(η_7)	(η_8)	(η_9)
Women Birthcohort 1927-1958:								
1.000	-.162	.563	-.076	-.010	.395	.226	-.144	-.071
-.162	1.000	-.280	-.004	.049	-.059	-.042	.034	.088
.563	-.280	1.000	-.079	-.027	.373	.220	-.159	-.093
-.076	-.004	-.079	1.000	.044	-.141	-.095	.046	-.009
-.010	.049	-.027	.044	1.000	.002	-.370	-.048	.094
.395	-.059	.373	-.141	.002	1.000	.338	-.139	.011
.226	-.042	.220	-.095	-.370	.338	1.000	.101	.018
-.144	.034	-.159	.046	-.048	-.139	.101	1.000	-.196
-.071	.088	-.093	-.009	.094	.011	.018	-.196	1.000
Women Birthcohort 1959-1975:								
1.000	-.137	.381	-.150	-.030	.280	.224	-.171	-.058
-.137	1.000	-.299	-.032	.069	-.051	-.080	.048	.061
.381	-.299	1.000	-.075	-.048	.202	.177	-.090	-.065
-.150	-.032	-.075	1.000	-.014	-.187	-.115	.080	-.031
-.030	.069	-.048	-.014	1.000	-.039	-.296	.023	.027
.280	-.051	.202	-.187	-.039	1.000	.377	-.139	.026
.224	-.080	.177	-.115	-.296	.377	1.000	-.087	.044
-.171	.048	-.090	.080	.023	-.139	-.087	1.000	-.122
-.058	.061	-.065	-.031	.027	.026	.044	-.122	1.000
Men Birthcohort 1927-1958								
1.000	-.154	.584	-.099	.030	.337	.199	-.137	-.106
-.154	1.000	-.203	.105	.024	-.106	-.020	.044	.066
.584	-.203	1.000	-.113	-.018	.335	.194	-.129	-.156
-.099	.105	-.113	1.000	.053	-.145	-.126	.038	.009
.030	.024	-.018	.053	1.000	-.053	-.327	-.021	-.027
.337	-.106	.335	-.145	-.053	1.000	.347	-.044	-.115
.199	-.020	.194	-.126	-.327	.347	1.000	.138	-.026
-.137	.044	-.129	.038	-.021	-.044	.138	1.000	.048
-.106	.066	-.156	.009	-.027	-.115	-.026	.048	1.000

(η_1)	(η_2)	(η_3)	(η_4)	(η_5)	(η_6)	(η_7)	(η_8)	(η_9)
Men Birthcohort 1959-1975								
1.000	-.125	.532	-.101	-.046	.323	.263	-.206	-.084
-.125	1.000	-.089	.071	.010	-.090	-.081	.110	.082
.532	-.089	1.000	-.110	.026	.314	.179	-.200	-.082
-.101	.071	-.110	1.000	.005	-.181	-.070	.090	.046
-.046	.010	.026	.005	1.000	-.001	-.260	-.022	-.027
.323	-.090	.314	-.181	-.001	1.000	.347	-.136	-.109
.263	-.081	.179	-.070	-.260	.347	1.000	-.099	-.041
-.206	.110	-.200	.090	-.022	-.136	-.099	1.000	.014
-.084	.082	-.082	-.046	-.027	-.109	-.041	.014	1.000

Source: Netherlands Family Survey 1992-93; Households in the Netherlands 1995.

Legend: (η_1) Respondent's Education, (η_2) Respondent's Job Sex-Typing, (η_3) Respondent's Occupational Status (ISEI), (η_4) Father's Job Sex-Typing, (η_5) Mother's Job Sex-Typing, (η_6) Father's Occupational Status (ISEI), (η_7) Mother's Occupational Status (ISEI), (η_8) Mother is a Homemaker, (η_9) Respondent has exactly the same occupation as same-sex parent .

Appendix E Scores of Occupational Sex-Typing Used in Chapter 4

CBS	Label	Sex-Typing (% Women)
100	PHYSICAL SCIENTIST	.22
110	CHEMIST	.00
120	PHYSICIST	.00
130	GEOLOGIST, METEREOLOGIST	.00
140	PHYSICAL SCIENCE ASS.	.25
200	ARCHITECTS	.06
210	ARCHITECTS	.05
220	ENGINEER CONSTRUCTN	.04
230	ENGINR ELCTRONICS	.03
240	HEAD TECHN SERV DEPM	.00
250	HIGH TECHNICN	.00
260	CHEM TECHNOLOGIST	.02
270	PHYS TECHNOLOGIST	.00
280	PLANNING ENGINEER	.12
290	HIGHER TECHNICIAN	.07
300	SURVEYORS,DRAWERS	.03
310	SURVEYOR	.00
320	DRAWER	.05
330	BLDING TECHN MIDRANK	.02
340	MID TECHNCNICIAN CONSTRU	.00
350	MID TECHNCNICIAN	.00
360	TECHNICN CHEMICS	.00
370	TECHNICN METAL	.00
390	TECHNCN NEC	.00
400	AIRCR SHIPS OFFICERS	.00
410	AIRCRAFT PILOT	.00
420	SHIPS OFFICERS	.00
430	SHIPS ENGINEERS	.00
500	BIOLOGISTS	.50
510	BIOLOGIST	.38
520	BIOCHEMIST ETYC	.29
530	AGRICULTURIST	.00
540	LIFE SCIENCE ASSISTENT	.64
600	PHYSICIANS	.41
610	PHYSICIANS	.27

630	DENTIST	.30
640	MOUTH HYGIENIST	.75
650	VETERINARIAN	.15
670	PHARMACIST	.22
680	PHARM ASSISTANT	.94
690	DIETIST	1.00
700	NURSES	.82
710	TRAINED NURSE	.82
720	OTHER NURSES	.87
730	MIDWIFES	1.00
740	MATERNITY NURSES	1.00
750	OPTICIANS	.30
760	PHYSIOTHERAPIST	.72
770	RADIOLOGCL ANALYST	.79
790	OTHER MEDICAL JOB	.78
800	MATHEMATICIANS	.11
810	MATH STATISTICIAN	.00
820	MATHEMATICIAN	.00
830	SYSTEM ANALYST	.10
840	PROGRAMMER	.12
850	STATISTICAL ASSISTENT	.00
900	ECONOMIST	.26
1100	ACCOUNTANTS	.16
1200	JURISTS	.33
1210	LAWYERS	.13
1220	JUDGE	.44
1290	OTHER LAW JOBS	.38
1300	TEACHERS	.46
1310	TEACHERS	.37
1320	TEACHERS	.39
1330	TEACHER PRIM SCHOOL	.62
1340	TEACHER SEC EDUCTN	.55
1350	PREPRIMARY TEACHER	.97
1390	SCHOOL PRINCIPALS	.21
1400	CLERGY	.18
1410	RELIGIOUS OCCUPATNS	.08
1490	CLERGY NEC	.29
1500	AUTHORS, JOURNALISTS	.48
1510	AUTHOR	.42
1590	JOURNALISTS	.49
1600	CREATIVE ARTIST	.43
1610	CREATIVE ARTISTS	.57
1620	ADD DESIGNER	.45
1630	PHOTOGRAPHER	.24
1700	ARTIST	.49

1710	MUSICIAN	.45
1720	BALLET DANCER	.82
1730	ACTOR,DIRECTOR	.42
1740	PROJECT MANAGER ARTS	.50
1750	CIRCUS ARTIST	.33
1790	NEWS READER	.33
1800	PROF SPORTSMAN	.59
1900	SCIENTIST NEC	.54
1910	LIBRARIAN	.52
1920	SOCIAL SCIENTISTS	.55
1930	SOCIAL WORKERS	.62
1940	PERSONNEL WORKERS	.47
1950	TRANSLATOER	.71
1990	OTHER SCIENCE EXPERT	.27
2000	HIGHER CIVIL SERVANT	.23
2010	MEMBER -LOCAL- GVRNM	.33
2020	HIGH CIV SERV-DIPLOM	.05
2100	MANAGERS	.15
2110	DIRECTOR NON-PROFT ORG	.07
2120	HEAD OF FIRM	.25
2130	GENERAL MANAGER	.10
2140	PRODUCTION MANAGER	.02
2190	DEPARTMENT HEAD	.20
3000	CLERICAL SUPERVISORS	.23
3100	GOV EXECUTIVE	.15
3200	SECRETARIES	.99
3210	SECRETARIES	.99
3220	PUNCH-TYPIST	.93
3300	BOOKKEEPERS	.57
3310	BOOKKEEPERS	.66
3320	BOOKKEEPERS	.66
3390	CALCULATORS	.41
3400	BOOKKPNG MACH OPRTR	.15
3410	BOOKKPNG MACH OPRTR	.41
3420	PUNCH-TYPIST	.09
3500	TRANSPORT SUPERVISOR	.07
3520	POSTMASTER	.38
3590	OTHER CLERICAL WORKRS	.06
3600	TRANSPORT CONDUCTOR	.10
3700	MAIL DISTRIBTION CLERK	.25
3800	TELEPHONE OPERATOR	.79
3830	OPERATOR	.79
3900	CLERICAL WORKER NEC	.59
3910	EXPEDITION CLERKS	.17
3920	PLANNER	.25

3930	CORRESPONDENTS	.65
3940	RECEPTIONISTS	.90
3950	LIBRARY ASSISTANTS	.66
3990	OTHER CLERKS	.59
4000	MANAGERS WHOLESALE	.08
4010	DIRECTOR WHOLESALE	.05
4020	MANAGER WHOLESALE	.11
4100	MANAGERS RETAIL	.22
4110	DIRECTOR RETAIL	.16
4120	MANAGER RETAIL	.23
4200	WHOLESALE PROPRIETOR	.19
4210	WHOLESALE PROPRIETOR	.19
4220	BROKER	.25
4300	SHOP KEEPER	.37
4310	SHOP KEEPER	.26
4320	SHOP OWNER MEDICAL ET	.38
4330	SHOP OWNER CLOTHES	.68
4350	SHOP OWNER FURNITURE	.42
4360	SHOP OWNER METALWARE	.23
4370	SHOP OWNER STATIONERY	.45
4380	SHOP OWNER JEWELERY	.38
4390	SHOP OWNER NEC	.34
4400	RETAIL OWNER	.21
4410	RETAIL OWNER	.13
4420	RETAIL OWNR PAINT	.13
4430	RETAIL OWNR CLOTHES	.44
4440	RETAIL OWNR FURNITUR	.33
4450	RETAIL OWNR FURNITUR	.17
4460	RETAIL OWNR METALWAR	.28
4490	RETAIL OWNR NEC	.16
4500	SALES MANAGERS	.21
4510	SALES SUPERVISOR	.25
4520	BUYER	.15
4600	SALESMEN	.09
4610	TECHN SALESMAN	.18
4620	OTHER SALESMAN	.08
4700	INSURNCE REAL ESTATE	.23
4710	INSURANCE SALESMEN	.17
4720	INSURANCE AGENT	.37
4730	ESTIMATOR, VALUER	.10
4800	SALESMAN	.60
4810	SALESMEN	.66
4820	STREET VENDOR	.29
4900	COMMERCIAL FUNCTIONS	.29
5000	HOTEL BAR OWNERS	.42

5010	HOTEL BAR DIRECTOR	.17
5020	MANAGER RESTAURANT-CAFE	.44
5100	HOTEL OWNER	.43
5110	HOTEL OWNER	.63
5120	RESTAURANT OWNER	.35
5130	BAR OWNER	.54
5140	OWNER CAFETERIA	.40
5180	HOLIDAY CAMP OWNER	.56
5190	OWNER RESTAURANT-CAFE	.40
5200	HOUSKEEPING SUPERVISOR	.59
5300	COOKS	.63
5310	COOKS	.42
5320	WAITERS	.75
5400	HOUSKPNG SERVICE WORKER	.97
5410	SERVICE PERSONNEL	.92
5420	OTHER SERVICWOR PERSONS	.99
5490	SERVICEWORK PERSONNEL	.99
5500	CARETAKER	.77
5510	CARETAKERS	.19
5520	CHARWORKERS	.85
5600	LAUNDERERS,WASHERS	.79
5700	HAIRDRESSERS	.83
5800	PROTECTIVE SERV WORKERS	.04
5810	FIREMEN	.00
5820	POLICEMEN	.09
5830	ARMY	.03
5833	ARMY SOLDIERS	.00
5890	SECURITY PERSONNEL	.08
5900	SERV WRKRS NEC	.75
5910	TRAVEL GUIDE	.75
5920	UNDERTAKER	.31
5930	MEDICAL ASSISTENTS	1.00
5990	OTHER SERVC WORKERS NE	.25
6000	FARMERS,FISHERS	.06
6010	FARM FOREMAN	.00
6020	VEGETBL FARM FOREMAN	.10
6090	FARM FOREMAN NEC	.00
6100	FARMERS	.12
6110	FARMERS	.11
6120	SELFEMPL AGR FARMERS	.16
6130	GARDENER	.00
6200	AGRCULT WORKER	.40
6210	FARM LABORERS	.62
6220	HORTICULT LABORERS	.49
6230	GARDEN WORKERS	.03

6240	FARM MACHIN OPERATOR	.00
6290	FARM WORKER NEC	.26
6300	FORESTRY WRKRS	.00
6310	FORESTER	.00
6320	FORESTRY WRKR	.00
6400	FISHERS,HUNTERS	.00
6410	FISHERS	.00
6490	OTHER FISHERS-HUNTER	.00
6800	MANAGER AGRICULTURE	.00
7000	PRODUCTN SUPERVSRS	.04
7010	PRODUCTN SUPERVSR	.02
7020	PROD SUPRVSR SERVICE	.06
7100	MINERS QUARRYERS	.00
7110	MINERS	.00
7130	OIL FIELD WORKERS	.00
7200	METAL PROCESSOR	.03
7210	METAL MELTER	.00
7220	ROLLING MILL OPERATOR	.00
7230	OVEN OPERATOR	.00
7240	METAL CASTER	.00
7250	METAL MOULDER	.00
7270	METAL EXTRUDER	.00
7280	GALVANIZER	.00
7290	METAL PROCESSR NEC	.00
7300	WOOD PREP WORKER	.07
7320	WOOD PREP WORKER	.00
7340	PAPER MAKERS	.08
7400	CHEM PROC WORKER	.08
7410	CHEM PROD WORKER	.04
7420	COOKER, ROASTER	.69
7440	DISTILLER	.00
7450	PETROLEUM REFINERS	.00
7490	OTHER CHEM PROCESWRK	.00
7500	TEXTILE WORKERS	.26
7520	SPINNERS	.29
7530	WEAV MACH SETTER	.29
7540	WEAVERS	.24
7560	CLOTH DYERS	.20
7590	TEXT WORKR NEC	.71
7600	TANNERS	.00
7700	FOOD BEVERG WRKRS	.18
7710	GRAIN MILLER	.00
7730	BUTCHRES	.16
7740	FOOD CONSERVORS	.43
7750	DAIRY PROD WRKRS	.19

7760	BAKERS	.14
7770	BREWER	.00
7790	OTHER FOOD PROCESSRS	.29
7800	TABACCO WORKERS	.22
7810	TABACCO WORKER	.00
7820	CIGAR MAKER	.00
7830	CIGARETTE MAKER	.06
7900	TAILORS	.67
7910	TAILORS	.98
7930	MILLINER	1.00
7940	TEXT PATTERN MAKER	.38
7950	SEAMSTRESSES	.93
7960	UPHOLSTERERS	.28
7990	TEXT PROD MAKERS	.43
8000	SHOEMAKERS	.32
8010	SHOEMAKERS	.00
8020	SHOE FACT WORKER	.62
8030	LEATHER PROD MAKER	.36
8100	CABINET MAKERS	.05
8110	CABINET MAKER	.02
8120	CAB MACH OPERTR	.07
8180	WOOD PRODUCTION WORKER	.00
8190	WOOD WORKER ENC	.12
8200	SCULPTURER	.00
8220	SCULPTURER	.00
8300	BLACKSMITHS	.04
8310	BLACKSMITHS	.00
8320	TOOL MAKERS	.00
8330	MACH TOOL SETTER	.01
8340	MACHINE OPERTR	.11
8350	METAL POLISHER	.00
8360	OTHER METAL MACH WRK	.11
8390	METAL WORKERS NEC	.07
8400	FITTERS	.03
8410	MACHINE FITTERS	.01
8420	CLOCK MAKERS	.15
8430	CAR REPAIRMEN	.00
8440	AIRCRAFT FITTER	.00
8450	MACHINE REPAIRMN	.01
8460	VEHICLE ASSEMBLERS	.15
8490	CHECKER	.15
8500	ELECTR FITTERS WORKE	.06
8510	ELECTRCL FITTER	.07
8520	ELECTRCL FITTER	.02
8530	MATHEMCL ASSISTANT	.32

8540	RADIO TV REPAIRMAN	.00
8550	ELECTRICIANS	.01
8560	TELEPHONE FITTER	.03
8570	POWER LINEMAN	.00
8590	CHECKER ELCTR PROD	.17
8600	BROADCASTNG STATN OP	.00
8700	PLUMBERS	.01
8710	PLUMBERS	.00
8720	WELDERS	.02
8730	SHEET METAL WRKR	.00
8740	METAL CONSTRN WEKR	.01
8790	FITTER NEC	.00
8800	GOLD SILVER SMITHS	.75
8900	GLASS FORMER	.21
8910	GLASS WORKER	.18
8920	POTTERY WORKER	.14
8930	POTTERY WORKER	.00
8940	GLASS ENGRAVER	.57
8990	GLASS POTTERY WORKER NEC	.43
9000	RUBBER PLASTIC WORKER	.17
9010	RUBBER PLAST WORKER	.17
9020	VULCANIZER	.00
9100	PAPER PROD WORKER	.09
9200	PRINTERS	.24
9210	TYPE SETTERS	.22
9220	PRINTERS NEC	.25
9240	ENGRAVER	.00
9250	REPRP PHOTOGRAPH	.12
9260	BOOKBINDERS	.33
9270	PHOTOGRAPH LAB WORKER	.61
9290	SCREEN BLOCK PRINTER	.23
9300	PAINTERS	.02
9310	PAINTERS	.00
9390	OTHER PAINTERS NEC	.06
9400	OTHER INDUSTR OCCUPATIONS	.25
9410	MUSICL INSTR MAKER	.00
9420	BASKET MAKER	.00
9430	CEMENT PROD MAKER	.00
9440	QUALITY CHECKER	.32
9490	INDUSTR OCCUPTN NEC	.47
9500	CONSTRCTN WORKERS	.00
9510	MASONS	.01
9520	CONCRETE CONS WRKRS	.00
9530	ROOFERS	.00
9540	CARPENTERS	.00

9550	PLASTERER	.00
9560	ISOLATOR	.00
9570	GLAZIER	.00
9580	GENERAL HOUSEBLDR	.01
9590	OTHER CONSTR WORKER	.01
9600	STAT ENGINE OPRTR	.00
9610	MACHINIST STATIONART	.00
9690	STATNR ENGINE OPERATOR	.00
9700	CRANE OPERATORS DOCK	.21
9710	EXPEDITION HAND	.30
9720	RIGGERS,SPLICER	.30
9730	CRANE OPERATOR	.01
9740	EART MOVING MACH OPERATOR	.00
9790	LIFT TRUCK OPERATOR	.01
9800	DRIVERS	.05
9810	SAILORS	.00
9820	SHIP FIREMAN	.00
9830	TRAIN DRIVER	.00
9840	DRIVER	.00
9850	DRIVER	.04
9860	WAGONEER	.04
9890	TRANSP FUNCTNS NEC	.25
9900	MANUAL WORKERS NEC	.06
9910	OTHER WRKRS NEC	.00
9920	CLEANERS	.12
9930	LABORER MENTALLY DISABLE	.36
9980	MANUAL WRKR CIV SERVIC	.06
9990	DOCKER FREIGHTER	.06

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De invloed van de moeder op het proces van statusverwerving

Nederlandse samenvatting

Stratificatie onderzoekers gaan er kennelijk van uit dat het weglaten van de beroepsstatus van de moeder geen invloed heeft op de geldigheid van hun modellen. Maar met de toename van het aantal vrouwen op de arbeidsmarkt is het goed mogelijk dat de beroepsstatus van de moeder als een essentieel onderdeel van de intergenerationele statusoverdracht moet worden bezien. Wanneer het beroep van de moeder zoals van de vader een invloed op de statusverwerving van kinderen heeft, kunnen de standaardbevindingen over omvang van en trends in intergenerationele statusoverdracht in een ander licht komen te staan. Modellen waarin alleen vaders beroep voorkomt, onderschatten dan de totale intergenerationele statusoverdracht en overschatten de rol van de vader.

Als inleiding op de probleemstelling van dit onderzoek wordt in hoofdstuk 1 een beeld geschetst van het groeiende gemiddelde opleidings- en beroepsniveau van (gehuwde) vrouwen door de jaren heen. In dit hoofdstuk wordt de assumptie gemaakt dat de groeiende sociaal-economische hulpbronnen van moeders op haar kinderen worden overgedragen. De hoofdvraag van dit onderzoek is hoe de opleiding en de beroepsstatus van de moeder invloed uitoefenen op het opleidings- en beroepsniveau van haar kinderen. De hoofdstukken van dit boek zijn zo opgezet dat ze de chronologische volgorde van het klassieke model van statusverwerving (Blau & Duncan 1967) volgen: eerst wordt de invloed van de moeder op het opleidingsniveau van de kinderen geanalyseerd, daarna op het eerste beroep, en vervolgens op de beroepscarrières van de kinderen.

De voorliggende studie beantwoordt hoe de coëfficiënten van het klassieke statusverwervingsmodel veranderen als het opleidingsniveau en de beroepsstatus van moeders aan dit model worden toegevoegd. In hoofdstuk 1 worden vier deelvragen onderscheiden, die centraal staan in deze studie: (a) Hoe groot is de invloed van opleiding en beroepsstatus van de moeder op het proces van statusverwerving? (b) Hoe groot is de invloed van het opleidingsniveau en de beroepsstatus van moeders in vergelijking tot die van de vader? (c) In hoeverre hebben de opleiding en beroepsstatus van de moeder een grotere invloed op het statusverwervingsproces van haar dochter dan van haar zoon? (d) Hoe is de invloed van de opleiding en de beroepsstatus van de

moeder, in vergelijking tot die van de vader, door de tijd heen veranderd?

In hoofdstuk 2 worden twee deelvragen over de invloed van de moeder op het opleidingsniveau van haar kinderen beantwoord. De eerste heeft betrekking op welk model het beste past bij het weergeven van processen van statusoverdracht op de opleiding van kinderen. De tweede is de vraag of conclusies over historische trends in het proces van statusoverdracht veranderen, als we de opleiding en beroepsstatus van de moeder aan het model toevoegen. Zes contrasterende hypothesen over het modelleren van sociaal-economische kenmerken worden ontleend aan de literatuur. Deze hypothesen zijn vervolgens omgezet in empirische modellen en hun verklaarde variantie is vergeleken. Een gestapelde dataset, bestaande uit data uit Nederland (Nederlandse Familie-Enquête 1992-1993, Huishoudens in Nederland 1995), (West-) Duitsland (German Life History Study) en de VS (National Study of Families and Households) is gebruikt voor de empirische toetsing van de modellen. Het *gemodificeerde dominantie model*, dat onderscheid maakt tussen de invloed van de ouder met de hoogste opleiding of hoogste beroepsstatus en de ouder met de laagste opleiding of laagste beroepsstatus levert het best passende model. De dominante ouder heeft de grotere invloed, waarbij het niet uitmaakt of het de moeder of de vader betreft. Vervolgens blijkt dat de invloed van de opleiding en beroepsstatus van beide ouders door de tijd heen daalt. De conclusie die in dit hoofdstuk wordt getrokken is dat het toevoegen van de moeder aan het model van statusverwerving geen invloed heeft op de algemene conclusie over trends in opleidingsreproductie. De invloed van moeders opleiding en beroep op het opleidingsniveau van haar kinderen is echter wel substantieel.

In hoofdstuk 3 wordt de arbeidsmarktparticipatie van moeders ter verklaring van het opleidingniveau van hun kinderen bestudeerd. Twee argumenten worden hierbij vergeleken. Het *tijdsbudgetargument* houdt in dat, omdat haar werkuren elders haar aanwezigheid thuis beperken, de arbeidsmarktparticipatie van de moeder een negatief effect heeft op de schoolloopbaan van haar kinderen. Het *hulpbronargument* stelt dat, vanwege de positieve relatie tussen de sociaal-economische hulpbronnen van de moeder en het opleidingsniveau van de kinderen, buitenhuis werkende moeders een positief effect hebben op het opleidingsniveau van kinderen. Data van twee surveys, 'Huishoudens in Nederland 1995' en de 'Nederlandse Familie-Enquête 1992-1993' zijn in de analyse opgenomen. Het hele databestand bevat 804 eerstgeboren kinderen van 13 jaar en ouder. Alleen moeders beroepsstatus vòòr de geboorte van het kind toont een positieve relatie met het opleidingsniveau van kinderen. Haar continue arbeidsmarkparticipatie voegt echter niets toe aan positieve invloed op het opleidingsniveau van kinderen. Het *tijdsbudget argument* wordt niet bevestigd. De resultaten tonen ook dat als de moeder na de geboorte van haar kind in een beroep werkt met een lage status of als ze terugkeert in een beroep met een lage status, er sprake is van een negatief effect op het opleidingsniveau van kinderen.

In hoofdstuk 4 wordt de aandacht gevestigd op de invloed van het beroep van de moeder (en de vader) op het eerste beroep van haar kinderen. Hierbij is de volgende vraag gesteld: In

hoeverre verklaren de beroepsstatus en het sekse-type van het beroep van de moeder en de vader de beroepsstatus en het sekse-type van het beroep van zonen en dochters? De data zijn afkomstig van 5027 respondenten van twee gestapelde Nederlandse enquêtes die tussen 1992 en 1995 gehouden zijn (Nederlandse Familie-Enquête 1992-1993, Huishoudens in Nederland 1995). Het effect van moeders beroepsstatus op dochters beroepsstatus is significant, maar kleiner dan het effect van de beroepsstatus van de vader op zijn zonen en dochters. De beroepsstatus van de moeder heeft geen effect op de beroepsstatus van zonen. De mate van seksegetypeerdheid van het beroep van de moeder is gerelateerd aan de mate van seksegetypeerdheid van het beroep van de dochter. Wanneer het beroep van de dochter meer vrouwelijk getypeerd is dan is haar beroepsstatus lager. Dezelfde relatie wordt gevonden voor de mate van seksegetypeerdheid van het beroep van de vader en de zoon. De intergenerationele overdracht van sekse-type is echter veel geringer dan van beroepsstatus. Alhoewel de uitbreiding van het klassieke statusverwervingsmodel tot nieuwe en interessante bevindingen leidt, kan in dit hoofdstuk worden geconcludeerd dat het meer elementaire klassieke statusverwervingsmodel niet tot onjuiste conclusies leidt.

In hoofdstuk 5 wordt de invloed van de beroepsstatus van de moeder en de vader op de beroepscarrière van haar dochter onderzocht. De hypothesen hebben betrekking op twee verschillende tijdsdimensies: moeders (en vaders) statusoverdracht gedurende de carrière van de dochter en statusoverdracht over de historische tijd. De hypothesen worden in een *continous state space model* getoetst. De gestapelde data bevat 6426 werkepisoden van 2475 vrouwelijke respondenten uit (West-) Duitsland en Nederland (German Life History Study, Nederlandse Familie-Enquête 1992-1993, Huishoudens in Nederland 1995). De resultaten tonen aan dat statuskenmerken van moeders en vaders beide belangrijk zijn ter verklaring van de beroepsstatus van de dochter. In tegenstelling tot de invloed van de beroepsstatus van vaders neemt de invloed van de beroepsstatus van moeders gedurende de carrière van dochters niet af. De conclusie is dat de statusimmobiliteit van dochters grotendeels verklaard kan worden door kenmerken van de moeder. Historisch gezien is de invloed van de moeder en de vader in gelijke mate afgenomen. In tweede instantie wordt in een exploratieve analyse aangetoond dat de beroepsstatus van de ouders meer invloed heeft op het proces van verwerving van beroepsstatus dan op de kans dat dochters een transitie naar een andere baan maken.

In hoofdstuk 6 worden aan de hand van de voorafgaande studies antwoorden gegeven op de vragen die in hoofdstuk 1 geformuleerd zijn. De eerste vraag was hoe groot de invloed van statuskenmerken van moeders is op de statusverwerving van haar kinderen. Als we moeders statuskenmerken toevoegen aan het klassieke model van statusverwerving, blijkt dat de conclusies in stratificatie onderzoek veranderen met betrekking tot de totale hoeveelheid van intergenerationele statusoverdracht. Moeders sociaal-economische hulpbronnen blijken een belangrijke bron van de overdracht van statusvoordelen van de ene generatie naar de andere te zijn. De beroepsstatus van de moeder is van invloed op het opleidingsniveau van zonen en dochters en op het beroepsniveau

van dochters. Gezien het feit dat het gemiddelde opleidings- en beroepsniveau van vrouwen constant stijgt (hoofdstuk 1), is het een punt van discussie in hoeverre in toekomstig onderzoek, als moeders invloed zou worden genegeerd, de totale invloed van sociale achtergrond op kinderen in toenemende mate wordt onderschat.

De tweede vraag luidde hoe de invloed van de moeder in relatie tot de invloed van de vader zich verhoudt. Deze vraag moet apart beantwoord worden voor het opleidingsniveau en voor de beroepsstatus van kinderen, omdat uit het onderzoek blijkt dat de modus van intergenerationele statusoverdracht verschilt voor die twee statusniveaus. De invloed van de moeder op de opleiding van kinderen is even groot als de invloed van de vader. De invloed van de moeder op het eerste beroep van haar kinderen is kleiner dan die van de vader. In feite beïnvloedt zij alleen maar de beroepsstatus van haar dochter. Daarentegen heeft vaders beroep een grotere invloed dan moeders beroep op de status van het eerste beroep van zonen en dochters. Gedurende de carrière van de dochter keert deze verhouding echter om. Na een paar jaar zien we dat de beroepsstatus van de dochter sterker gerelateerd is aan de beroepsstatus van de moeder dan aan die van de vader. Ook de *modus* van overdracht van ouderlijke status verschilt tussen de opleiding en beroepen van kinderen. Wat betreft de intergenerationele status reproductie van opleiding is het het beste om statusoverdracht met een *gemodificeerd dominantiemodel* te onderzoeken. Het *dominantiemodel* (Erikson 1984), waarvan dit model is afgeleid, stelt dat de ouder met de hoogste sociaal-economische kenmerken bepaalt over welke hulpbronnen de familie kan beschikken. Uit de resultaten blijkt echter, dat beide ouders belangrijk zijn en elkaar aanvullen in het proces van opleidingsreproductie. Het *gemodificeerde dominantiemodel* modelleert de invloed van de ouders op een manier dat ze ingedeeld zijn in een hoge *en* een lage status ouder. De *modus* van reproductie van beroepsstatus is anders. Voor zonen zien we dat de statusoverdracht via de beroepen van de ouders niet aanvullend is, omdat de moeder geen zelfstandige invloed heeft op de beroepshoogte van het eerste beroep van zonen.

De derde vraag gaat over het verschil in invloed van de moeder op opleiding en beroepsstatus van zonen en dochters, met andere woorden, over de toepasbaarheid van het sekserolmodel in stratificatie onderzoek. Met betrekking tot opleidingsreproductie vinden we geen aanwijzingen voor het bestaan van een sekserolmodel. De moeder en de vader zijn even belangrijk voor de opleiding van hun zonen en dochters. Voor statusoverdracht bij beroepen vinden we in de data echter wel bewijzen voor het bestaan van een sekserolpatroon. Moeders beroep is alleen bepalend voor het eerste beroep van de dochter, niet voor het eerste beroep van de zoon. Vaders beroep is belangrijker voor het eerste beroep van zijn zoon dan voor het eerste beroep van zijn dochter. Dit patroon blijkt gedurende het verloop van de carrière van de dochter sterker te worden. Hoewel de invloed van de vader op het eerste beroep van de dochter hoger is dan de invloed van de moeder, is de carrière van de dochter in toenemende mate gerelateerd aan de beroepsstatus van hun moeder. Binnen enkele jaren na de start van de carrière van de dochter is de

invloed van de moeder groter dan die van de vader. Voor een groot deel van de dochters geldt dat hun beroepsstatus gedurende hun carrière gerelateerd blijft aan de beroepsstatus van hun moeder en niet van hun vader. Dit impliceert dat we mogelijk binnen patronen van de reproductie van beroepsstatus naar twee soorten mobiliteit aan het kijken zijn: het mannelijke patroon (vaders en zonen) en het vrouwelijke patroon (moeders en dochters).

De vierde vraag was hoe de invloed van de moeder, gerelateerd aan de invloed van de vader, *over de tijd heen* is veranderd. Door de jaren heen is de invloed van de moeder en de vader op het opleidingsniveau van hun kinderen op dezelfde manier gelijkmatig afgenomen. Voor intergenerationele overdracht van beroepstatus bestaat echter een tegenovergesteld resultaat. In hoofdstuk 4 zien we dat alleen de invloed van de vader op het eerste beroep van zijn dochter steeds kleiner wordt, de invloed van de moeder op het eerste beroep van haar dochter blijft min of meer gelijk over de tijd. Dit resultaat leidt tot de conclusie dat, vergeleken met de invloed van de vader, de moeder steeds belangrijker wordt voor de statusverwerving binnen het *eerste beroep* van de dochter. Aan de andere kant vonden we in hoofdstuk 5 dat de invloed van beide ouders op de beroepsstatus van de dochter over de tijd heen op dezelfde manier afneemt. Dus ook de moeder wordt steeds minder belangrijk voor het voorspellen van de beroepsstatus van de dochter.

Een verklaring voor deze strijdigheid kan worden gezocht in het feit dat de geobserveerde tijdsperiodes tussen hoofdstuk 4 en 5 van elkaar afwijken. De resultaten in hoofdstuk 5 hebben betrekking op cohorten van dochters die geboren zijn tussen 1927 en 1965. De tijdsperiodes in hoofdstuk 4 omvatten cohorten van dochters die geboren zijn tussen 1927 en 1975. We weten dat de opleidings- en de beroepsstatus van personen sterk aan elkaar gerelateerd zijn (hoofdstuk 4 en 5). Als men ervan uitgaat dat effecten van de opleidingsexpansie eind jaren vijftig, begin jaren zestig meetbaar worden, dan zijn de eerste vrouwen die deze expansie meegemaakt hebben circa 15 tot 20 jaar later -afhankelijk van hun opleidingsniveau- op de arbeidsmarkt begonnen en zijn vervolgens wellicht getrouwd en hebben kinderen gekregen. Hoofdstuk 4 omvat ook cohorten van dochters die vanaf medio jaren zestig zijn geboren. De grens in hoofdstuk 5 ligt daarentegen op cohort 1965. Mogelijkerwijs zijn de jaren tussen 1965 en 1975 de cruciale jaren vanaf wanneer het mogelijk wordt de verandering van moeders overdracht van status op haar dochter te meten. Eerdere studies lieten een dalende trend van de invloed van ouders op het statusverwervingsproces zien maar zijn in het algemeen op nog oudere data gebaseerd. Wellicht dat we getuige zijn van een ommekeer van trends in het statusverwervingsproces bij beroepen gedurende de afgelopen tien jaar.

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